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The OIL and GAS JOURNAL

PRODUCING REFINING ENGINEERING MARKETING

Published Every Thursday TULSA, OKLAHOMA, SEPTEMBER 19, 1929 $6.00 a Year

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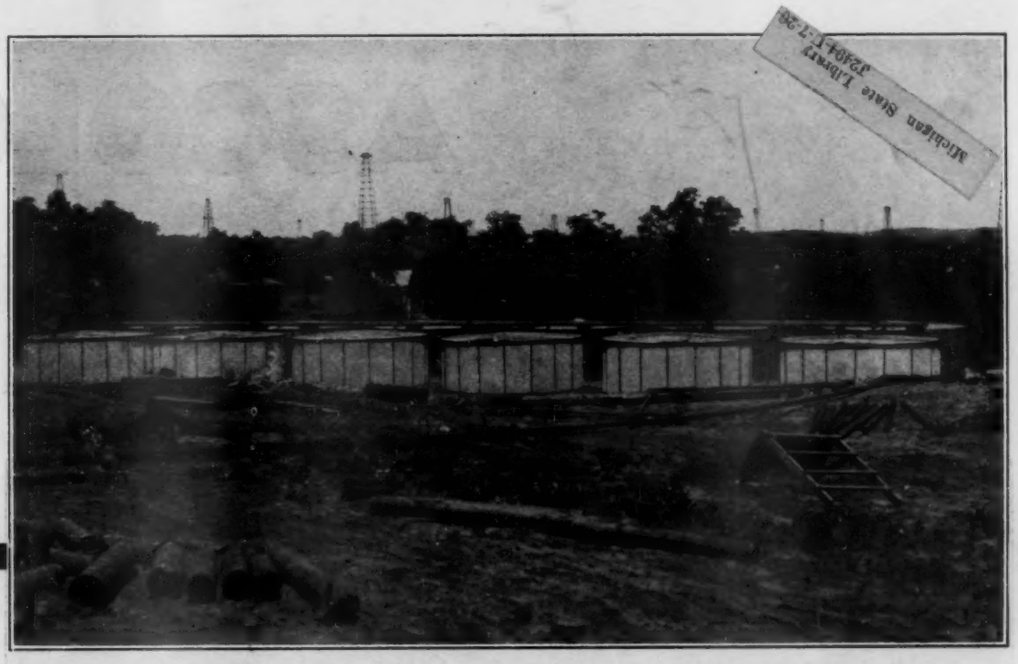

Twelve 500-Bbl. Low Type Maloneys on Tewee Farm, Carter Oil Co., Wolf, Okla.

Sell More Oil—at Better Prices—with Maloney *Vapor-Pressure* Tanks

MALONEY FEATURES:

1. Made of rust-resisting Keystone Copper steel.
2. Maloney patented close fitting "crimp" seams and joints.
3. Maloney pliable rubber gasketing and Gaso cement.
4. All seams, including deck seams, reinforced with rigid steel channels.
5. Special bolts of 90,000 pounds tensile strength.
6. Large cleaning out plates set flush with bottoms.
7. Howell aluminum "4-in-1" Vacuum Pressure Valve and Thief Hatch.
8. Maloney special pearl gray paint.
9. Sizes 12 to 10,000 barrels.
10. Packed in steelbound crates for export.

It is obvious that crude oil will bring more money if evaporation is prevented from cutting down the quantity and the quality. And it has been thoroughly proven by government tests that evaporation is reduced to the minimum by equipping tanks to hold pressures up to 14 or 16 ounces and by painting tanks with light colored paint to prevent excessive temperature variations.

MALONEY *Vapor-Pressure* Flow and Stock Tanks are constructed and equipped to hold pressures up to 16 ounces, and ½ ounce or more of vacuum. They are painted with Maloney special pearl gray paint. By drastically restricting breathing losses, these tanks enable producers of crude oil to sell more oil, at better prices.

The Maloney Tank Mfg. Company announces Bolted Steel Tanks conforming with dimensional standards, A. P. I., and carrying the official A. P. I. monogram.

"Alone in Quality"

MALONEY TANK MFG. COMPANY
Tulsa, Oklahoma

Distributers at All Principal Petroleum Points

MALONEY

MALONEY PATENTED BOLTED COPPER-STEEL TANKS

Advertisers' Index on Page 33 Table of Contents on Page 34

ALLEGHENY METAL & ASCOLOY 33

CORROSION controlling alloys . . . . . metals fearing neither the sting of caustics nor the bite of acids.

Tough, strong metals that can stand on their own feet in the construction of heavy equipment, yet cost little, if any more than less able materials.

ALLEGHENY METAL AND ASCOLOY 33 . . . . . both possessing these general characteristics, yet each best suited to solution of specific problems in atmospheric and chemical corrosion. Available in commercial shapes, sizes and forms.

Technical bulletins on request.

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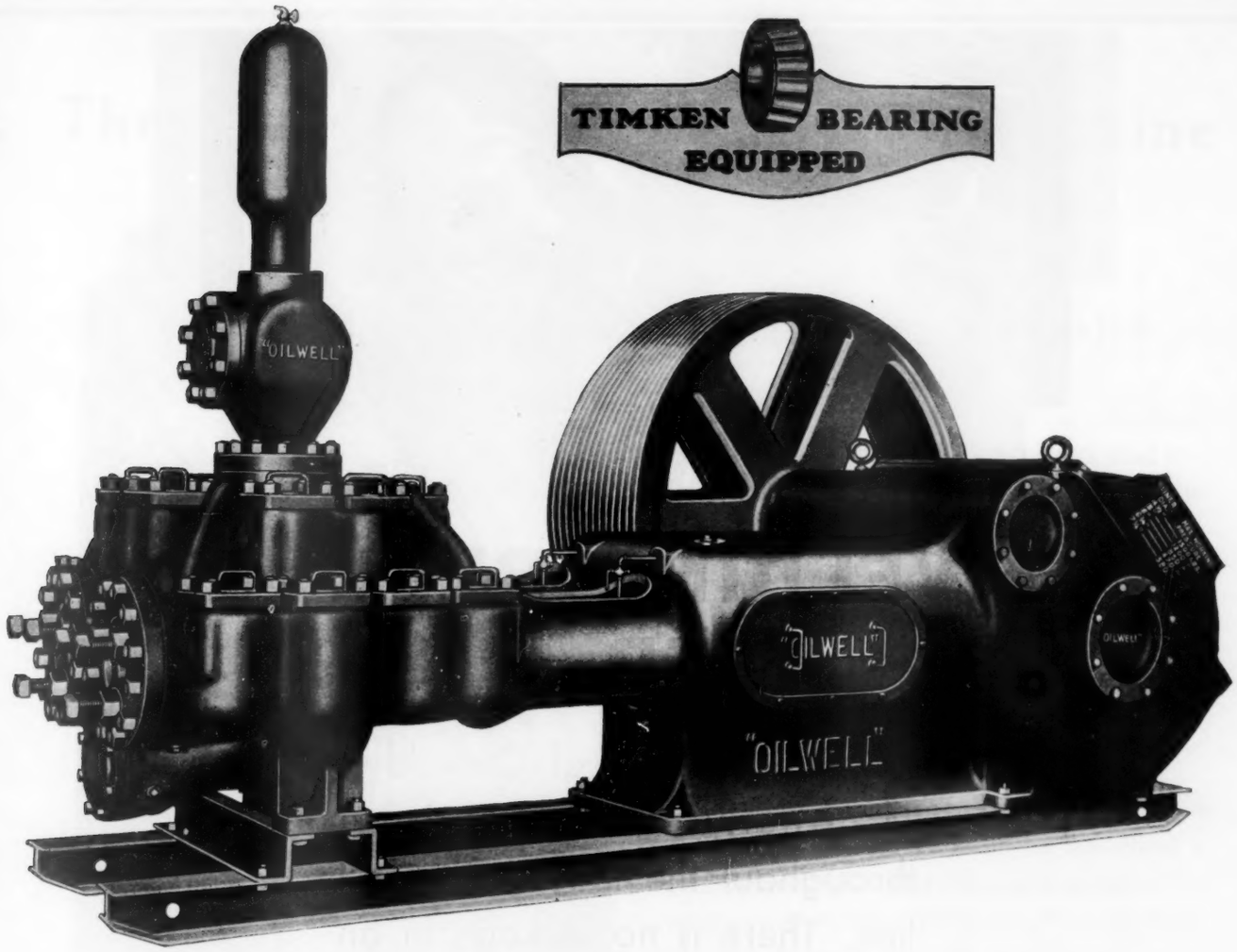
Allegheny

Sheets for Automobile Bodies · Metallic Furniture · Deep Draws Allegheny Metal · Ascoloy · Electrical Sheets · Steel Castings · Boiler Tubes · Pipe



Capacity Plus

Timken Bearing Equipped, in the case of the "Oilwell" Oil Bath "Mud Hog" Pump, means increased capacity to do the work and stand the gaff of oil field service.

Specifically, it means that the crank shaft and pinion are afforded Timken protection from the wear of radial and thrust loads, or fluctuating pressure loads. It means that maintenance and upkeep expense is cut to the bone, that power consumption is low, and that dependability is high.

The exclusive Timken combination of Timken tapered construction, Timken *POSITIVELY ALIGNED ROLLS* and Timken steel is made responsible for added years of service.

THE TIMKEN ROLLER BEARING COMPANY, CANTON, OHIO

TIMKEN *Tapered Roller* **BEARINGS**

The Oil and Gas Journal, issued weekly by The Petroleum Publishing Company, 114-116 West Second Street, Tulsa, Oklahoma. Subscription price $6.00 a year; 15 cents a copy. Entered as second-class mail matter December 15, 1911, at t he post office at Tulsa, Okla., under the Act of March 3, 1879.

OXWELDING REDUCES UP-KEEP COSTS

THE economies of Oxwelded construction continue throughout the life of the pipe line. There is no leakage in an oxwelded line and there is no maintenance expense, for the joints will last as long as the pipe.

The Best of Everything for OXWELDING AND CUTTING

LINDE OXYGEN
The Linde Air Products Co.

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Union Carbide Sales Co.

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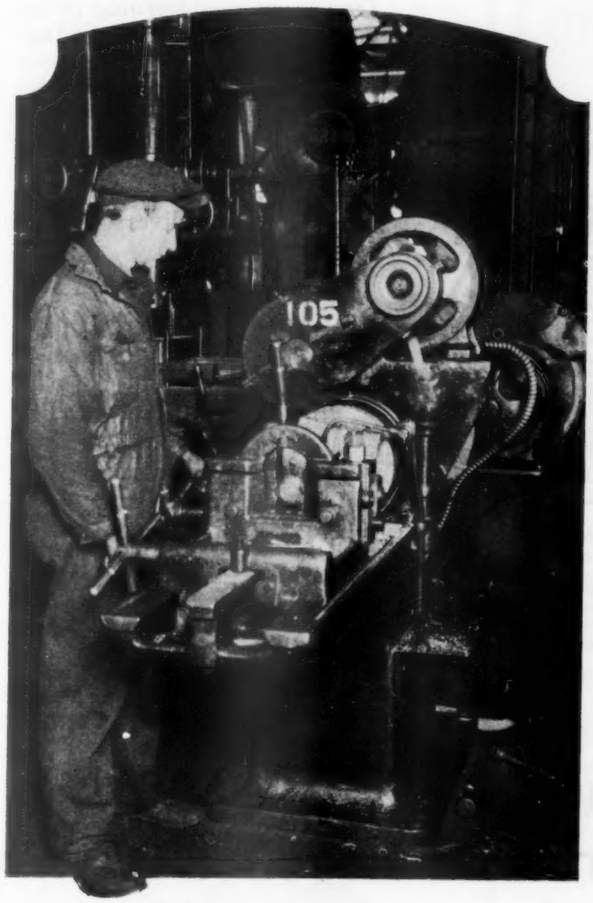
64 Linde Plants—45 Prest-O-Lite Plants—154 Oxygen Warehouse Stocks—138 Acetylene Warehouse Stocks—38 Apparatus Warehouse Stocks—235 Carbide Warehouse Stocks

The Multi-purpose Threading Machine for Oil Field Shops



The Landis Bolt Threading Machine, because of its flexibility, precision, and low operating cost, can be used to particular advantage in the oil fields.

Landis has incorporated in this machine the same standards of dependability, accuracy and low cost operation that have made Landis Pipe Threading and Cutting Machines well known in the Oil Industry.

Oil field work is varied. It requires a threading machine capable of handling a wide variety of materials—a machine covering a wide range and above all, a machine able to maintain close thread limits.

The Landis meets oil field requirements fully and still has a tool cost low enough to effect a considerable saving in operating cost.

This saving will warrant the installation of a Landis in your shop.

Write us today for Catalog No. 32.

LANDIS MACHINE COMPANY, Inc., Waynesboro, Pa.

Detroit Office—5928 Second Blvd.
Cleveland Office—504-505 Marshall Bldg.

REPRESENTED IN THE DOMESTIC OIL FIELDS BY: Colcord-Wright Machinery & Supply Co., St. Louis, Mo.; D. S. Mair Machinery Co., Houston, Tex.; Woodward, Wight & Co., New Orleans, La.; Herberts Machinery & Supply Co., Los Angeles; Herberts Moore Machinery Co., San Francisco, Calif.; Hendrie & Bolthoff Mfg. & Supply Co., Denver, Colo.

FOR MORE MILES TO THE GALLON

Magnolia MAXIMUM MILEAGE Gasoline contains the greatest amount of power producing units that it is possible to completely evaporate in the combustion chamber of a motor. This is why it gives more miles per gallon. Proved by actual road test.

TO PREVENT WEAR AND PRESERVE POWER

MAGNOLIA PETROLEUM COMPANY — Magnolene — PARAFFINE BASE MOTOR OILS

Refined from Paraffine Base Crudes of Selected Quality from our own wells, Magnolene Motor Oils do not break down under intense heat, friction or high compression. They conform to the consistency ratings of the Society of Automotive Engineers and to the specifications of the U. S. Government. Further, they are road tested by our lubricating engineers.

TO ELIMINATE FUEL KNOCK

Due to its even-burning properties, the combustion of Magnolia ANTI-KNOCK Gasoline does not work against the up-stroke of the piston but attains its full force at the moment power should be applied to the down-stroke of the piston. It thus delivers knockless power.

MAGNOLIA MAXIMUM MILEAGE GASOLINE

MAGNOLIA ANTI-KNOCK GASOLINE

Whatever the need .... more miles per gallon .... smoother power for high compression motors and motors troubled with fuel knock .... long life for mechanical parts .... each is dependably met in some one of these proven

Magnolia Products

OBTAINABLE AT MAGNOLIA STATIONS AND DEALERS

Magnolia Fuel Oil Loading Stations at Beaumont, Corsicana, Sabine, Galveston, Fort Worth, Harbor Island, Luling, Corpus Christi, Dallas, Herma, Arkansas; Mirando.

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Division Sales Offices at Dallas, Houston, Fort Worth, San Antonio, Oklahoma City, Little Rock, Amarillo, El Paso.

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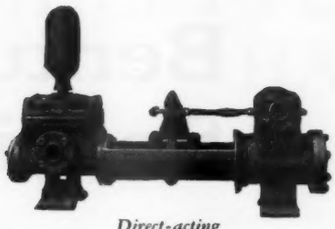
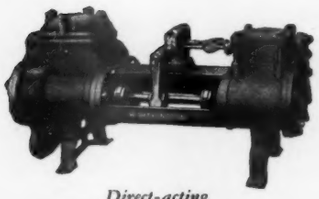


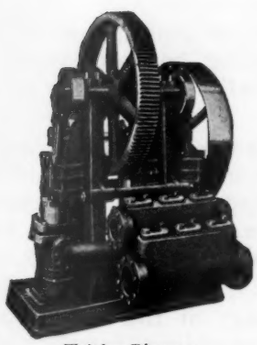
Direct-acting Simplex Steam Pump



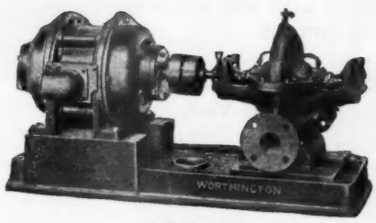
Direct-acting Duplex Steam Pump

Duplex Piston Power Pump

Visit the Worthington Exhibit in Block L, north of the center of the Oklahoma Building



Triplex Plunger Power Pump



Ball Bearing Centrifugal Pump

P-41

Conditions... FIXED *Pump Design...Variable*

HERE, in five words, is the situation surrounding the selection of pumps for 99 out of 100 installations. The conditions under which the pump is to be used are fixed. Capacity, head, speed, location, temperature, viscosity of liquid, and the like, are established. The pump must fit the conditions, *not vice versa.*

Worthington need ask no favors. Among the hundreds of combinations of type, drive and size, there is a Worthington Pump which meets each set of conditions. *No compromise is necessary.*

When you have a pumping problem, call in a Worthington representative. He can give you the benefits of Worthington's 89 years in the manufacture of pumping and power service equipment.

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PUMPS
COMPRESSORS
CONDENSERS *and* Auxiliaries
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GAS ENGINES
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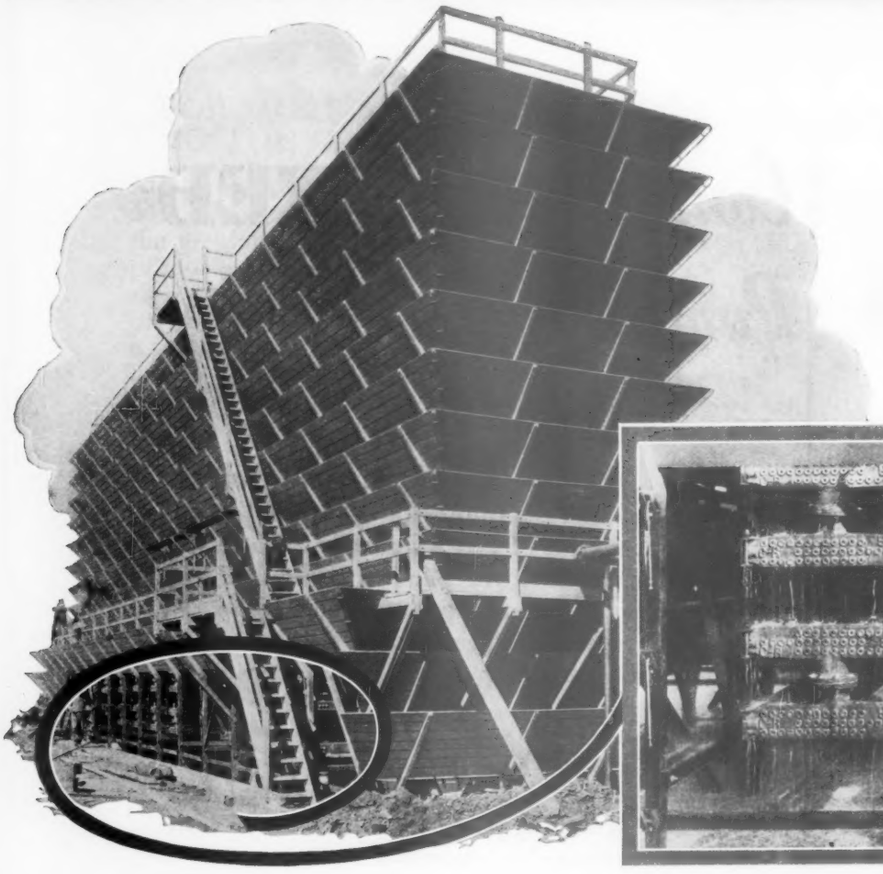
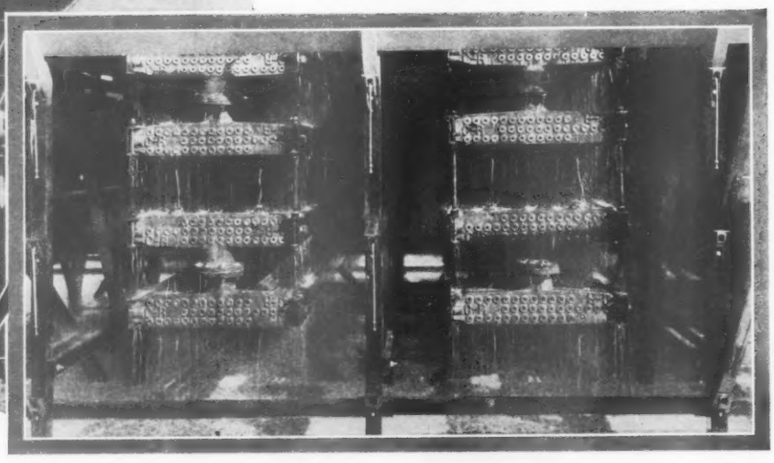


The G-R Bentube Section



High salvage value—

THE G-R Bentube Section, for atmospheric or submerged condensing or cooling, has several distinctive features that make it specially applicable to natural gasoline plant services.

High salvage value—one of its outstanding advantages—is assured by its sectional construction and the corrosion-resistant materials used in its construction. These sections can quickly be set up in banks, taken down, and moved about the plant as required by operating conditions.

An additional special advantage of the G-R Bentube Section is its unique scale-shedding feature which assures maintenance of rated capacity, even with bad quality cooling water. G-R Bentube Sections are made standard and interchangeable and are stocked in large quantities for immediate shipment.

PATENT NOTICE
The G-R Bentube Section is fully protected by U. S. Patent No. 1,617,083

THE GRISCOM-RUSSELL COMPANY
285 Madison Avenue, New York

Philadelphia	Chicago	Minneapolis	Atlanta	Tulsa	San Francisco
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CONDENSERS
Sub-cooling—Partial—Reflux
Shell-and-Tube, Atmospheric, and Condenser Box Types
COOLERS
Liquid—Gas—Jacket Water
Shell-and-Tube, Atmospheric, and Condenser Box Types
OIL HEATERS
LEVEL CONTROLLERS

Griscom-Russell
Heat Transfer Apparatus

A LETTER FROM HARRY G. NYE

"WHY GO OUT INTO THE WIDE OPEN SPACES"

Fellow Citizens:

These are the Sundays when you like to load up the car with kids and sandwiches and get out into the wide open spaces, if any. It would be a grand idea, if 1,879,693 other people didn't have the same idea at the same time, and if all the automobiles in the United States were not placed end to end—on Sunday as they are.

We talk about the wide open spaces, but if the saloons in this country weren't any wider open than the spaces are, then prohibition might be said to be a success. But what happens? You start out to see the wide open spaces, but all you ever see is a lot of rear ends. A park is a place where there is no place to park.

But last Sunday I thought up a bright idea of my own, and it is so good that I want to communicate it to the brothers. What we did was to pack up a lunch and pick up the kids and then back the old bus out of the barn and park it in the shade of a noble mullein right in our own alley. We couldn't have found a hotter place if we had looked all day.

There was a lovely little waterfall, where we let the hose hang over the fence, and the kids got their Sunday clothes just as dirty just as quick as if they had been miles from home. We left the engine running, and so the air was just like it is out in the country. And the flies lit on the lunch and the sand got in the sandwiches, and everything.

The ants crawled over us, and a stray dog bit one of the children—in fact there wasn't a feature missing. *We* had just as nice a Sunday as we would have had at Mud Lake or Mosquito Park. And, last but not least, I sat down on a berry pie, and that was the end of a perfect day, and also of my best pair of pants.

And then, just as the sun set over the gasworks, we backed her into the garage again, and we were home once more—just as tired and dirty and cross as if we had done sixty miles and used up a dollar and seventy-five cents' worth of gas and a couple of fenders. It's a great idea. So are Nye tools.

There's no need running around looking for anything else if you just have Nye Tools in the shop. Everything in the pipe-cutting line—that's the Nye line. They do the quick job faster and the hard job easier than any other pipe-cutting tools on earth.

Faithfully yours,
HARRY G. NYE.

NYE

Thin Blade
Cutter Wheels
Knurled
or
Smooth Edge

Made to Fit
All
Standard Makes
of
Pipe Cutters

Knurled Edge

Smooth Edge

Nye cutter wheels are made from the highest grade tool steel, and are hardened and tempered in oil. Blades about $\frac{1}{16}$th of an inch thick and straight from hub to cutting edge. Cut with one-third the time and power required by old type wheels. And also they are—

ABSOLUTELY
GUARANTEED

Copyright, 1929, by
HARRY G. NYE
All Rights Reserved

Otherwise Known as
THE NYE TOOL & MACHINE WORKS
4120-30 Fullerton Ave., Chicago, Ill.

Nye Saunders Pattern Pipe Cutter

The Nye Saunders type pipe cutter is equipped with Nye knurled wheels. All parts are interchangeable.

No. 1	$ 2.00 net
No. 2	3.00 net
No. 3	7.33 net
No. 4	12.00 net
No. 5	18.67 net

West of Rocky Mountains 5% Additional

Nye Drop Forged Pipe Cutter

Equipped with Nye Knurled Wheels

No. 1-A Complete	$2.75 net
No. 2-A Complete	3.30 net
No. 3-A Complete	5.50 net

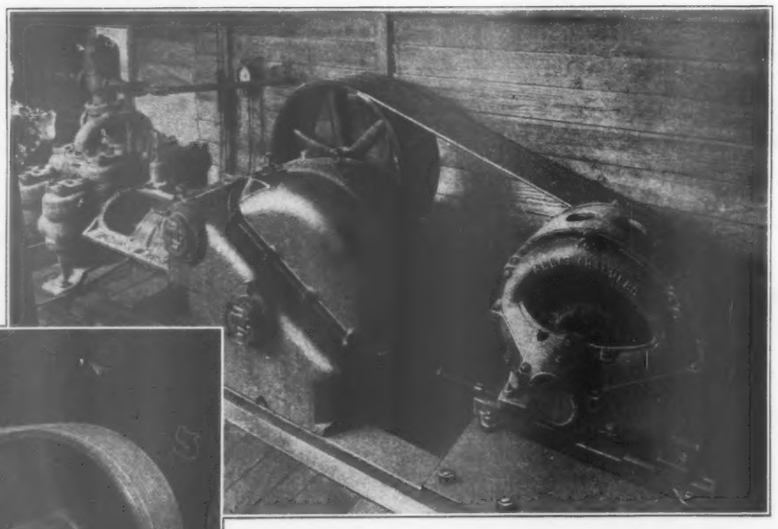
West of Rocky Mountains 5% Additional

Nye Three-Wheel Pipe Cutter Barnes Type

Equipped with Three Nye Knurled Wheels

No. 1	$ 2.48 net
No. 2	3.30 net
No. 3	5.50 net
No. 4	11.00 net
No. 5	16.50 net
No. 6	22.00 net

West of Rocky Mountains 5% Additional



150 h.p. Allis-Chalmers Variable Speed Motor driving Slush Pump through Texrope Drive.

150 h.p. Allis-Chalmers Rotary Drilling Motor and Control driving Draw Works and Table through Texrope Speed Reducer.

Motors, Drives *and* Control *for* Rotary Rigs

Special motors and improved variable speed controls have led an increasing number of drilling contractors and oil operators to look to electricity as a means of decreasing their drilling costs.

Allis-Chalmers builds transformers, motors and controls for both cable and rotary drilling rigs. Special drilling motors have been developed with enclosed slip-rings and drip-proof frames as protection against splashing water or corrosive gases. Allis-Chalmers control equipment is completely assembled, wired and mounted on skids for easy handling. Rotary control consists of full magnetic type with predetermined acceleration or semi-magnetic type with drum control for speed regulation. Slush pump controls are of the semi-magnetic type.

Texrope units furnish the necessary speed reduction from the motor to the draw works. Texropes are flexible and furnish a shock absorbing medium between the motor and the drive chain or clutches. They are widely used as slush pump drives — operating on close centers without slipping and protecting the motor from shocks.

Write your nearest oil field office for detailed information on Allis-Chalmers oil field equipment. Stocks carried at Tulsa, Houston, Sweetwater, and Los Angeles.

ALLIS-CHALMERS MANUFACTURING CO., MILWAUKEE, WIS.

ALLIS-CHALMERS MOTORS *and* TEXROPE DRIVES

KILL FIRE WHILE IT IS YOUNG

FOAMITE Generators — your heavy artillery against fire

Just as your smaller units of FOAMITE Equipment—extinguishers and engines—are your shock troops to subdue fire, so FOAMITE Foam Generators are your heavy artillery.

Kill the fire if possible, or hold it in check, with the smaller equipment—but be sure your second line of defense is ready for any emergency. The FOAMITE Generator is easily portable to any point—"a million dollar performer that you can carry under your arm". Connect it to your water supply, pour in a *single* powder—FOAMITE Generator Powder—and a stream of the highest-grade foam—genuine *Firefoam*—goes into action.

The mixture of powder and water is automatic. There are no fancy adjustments. The Generator operates properly between wide limits of pressure.

Used as a portable fire fighter, or hooked into a FOAMITE Generator System, the Generator has a wide range of usefulness. One of our representatives will be glad to demonstrate for you this method of assuring practically unlimited quantities of *Firefoam*.

You are cordially invited to visit our booths—95 and 96 in the Texas Building—at the 6th International Petroleum Exposition.

American-La France and Foamite Corporation, Engineers and Manufacturers, Dept. F32, Elmira, N. Y.

AMERICAN-LA FRANCE AND FOAMITE PROTECTION

A Complete Engineering Service

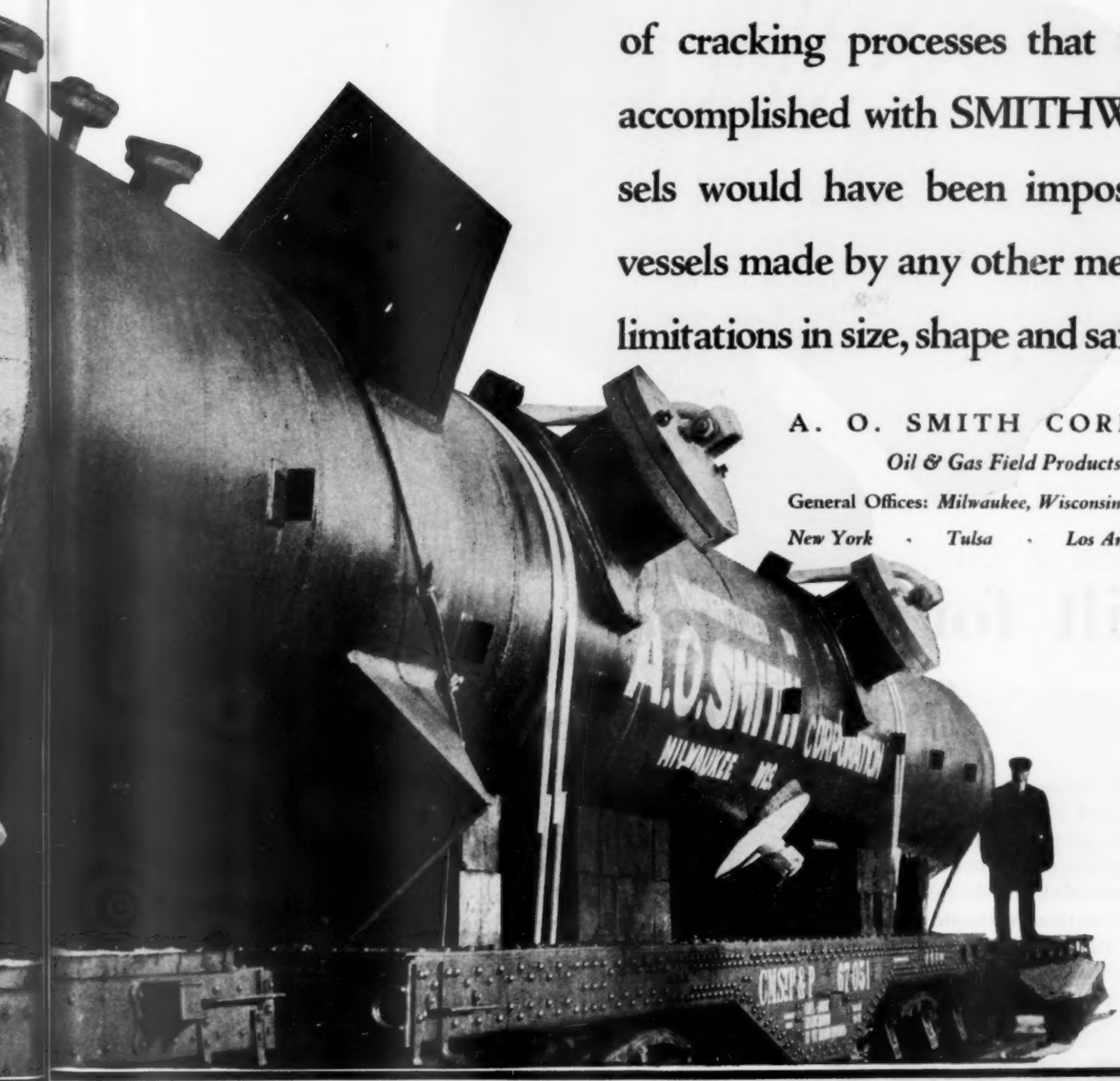
For Extinguishing Fires

Many

SMITH

DEVELOPMENTS and EXTENSIONS

of cracking processes that have been accomplished with SMITHWelded Vessels would have been impossible with vessels made by any other means due to limitations in size, shape and safety factors.



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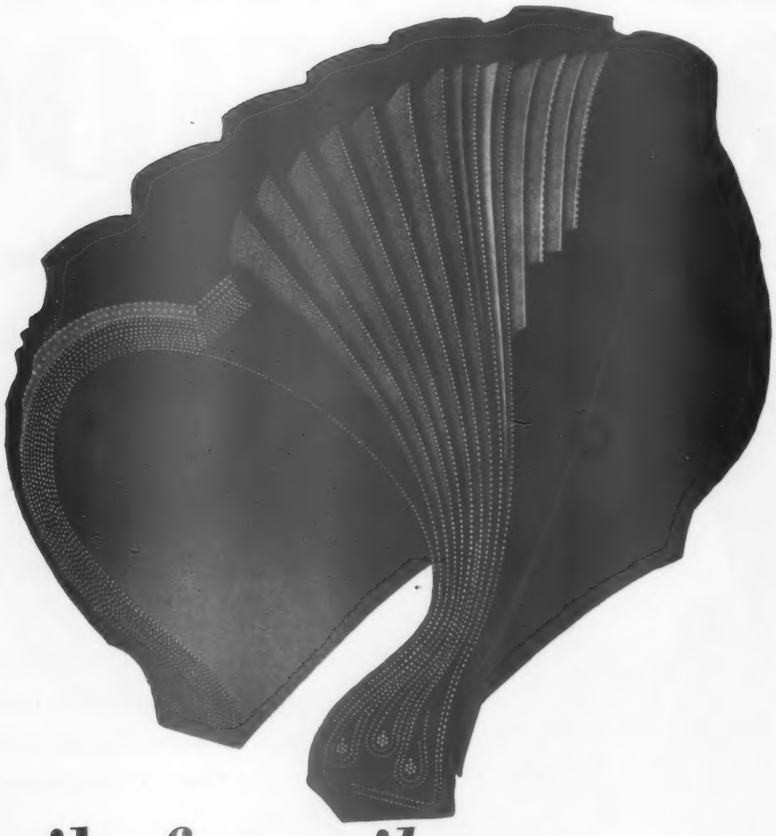
WELDED CRACKING STILLS



Built for *mileage* from Rim to Road

THIS cross-section of a Fisk Transportation Cord shows the many unique features that give unusual durability.

The tough tread, made of special heat-resisting material, is designed to give maximum traction without "cupping".

Breaker strips absorb and distribute all road shocks.

Between these strips and the carcass are extra cushion strips to give additional protection.

The carcass itself, made by Fisk's unique *All-Cord* process, is free from internal friction and over-heating. Sinewy cords are insulated by live rubber, preventing wear when the carcass flexes.

The multiple cable bead provides a solid foundation at the point of greatest stress, giving the strength to withstand every strain.

The correctness of Fisk's unique construction has been proved under all kinds of conditions on roads from coast to coast. Equip your truck with Fisk Transportation Cords if you want tires you can always depend on...regardless of loads or roads.

FISK

Visit us at the International Petroleum Exposition, October 5 to 12; Booth 80, Oklahoma Building.

IT'S A MIGHTY BIG "OUTFIT"

which provides the petroleum industry all over the world with that vitally important part of its equipment—dependable wire line.

Two great productive factories in St. Louis and Seattle and commodious warehouses in New York and Portland, Oregon, keep supply houses everywhere well stocked with B & B Cable Tool Drilling Lines, Sand Lines and Pumping Lines, and the famous Yellow Strand Rotary Lines, laid up to suit conditions in each field. You get what you want *when you want it.*

Broderick & Bascom began making wire rope in 1876, were pioneers in designing special drilling cables—pliable, easy running lines that spell speed and economy in the cable tool field; and invincible Yellow Strand Rotary Lines, supremely elastic, non-crushing, and of uniform strength.

All B & B Lines are made of wire drawn to our own specifications and tested four ways before being made into rope. Machinery of exclusive design. Workmen of ripe experience. Result: Good, uniform, dependable lines.

If you don't know name of nearest B & B Distributor, ask us. Write for catalog K-2.

Broderick & Bascom Rope Co.

St. Louis

Factories: St. Louis and Seattle

Warehouses: New York and Portland, Ore.

New York Office and Warehouse

St. Louis Factory

New St. Louis Office

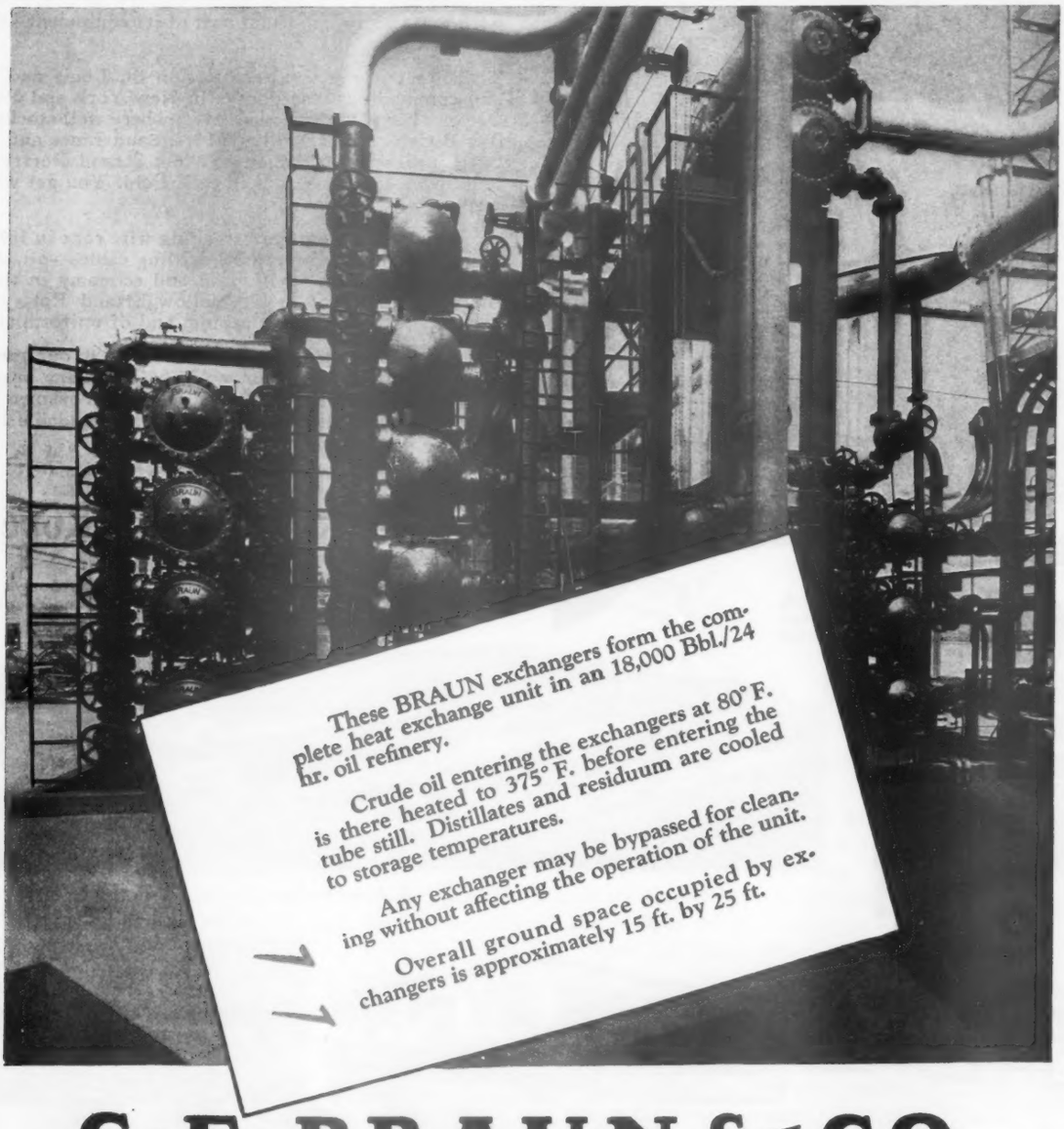
Portland, Ore., Warehouse

Seattle Factory

BRODERICK & BASCOM DRILLING LINES

N596

COMPACT yet ACCESSIBLE


These BRAUN exchangers form the complete heat exchange unit in an 18,000 Bbl./24 hr. oil refinery.
Crude oil entering the exchangers at 80° F. is there heated to 375° F. before entering the tube still. Distillates and residuum are cooled to storage temperatures.
Any exchanger may be bypassed for cleaning without affecting the operation of the unit.
Overall ground space occupied by exchangers is approximately 15 ft. by 25 ft.

C·F·BRAUN & CO.

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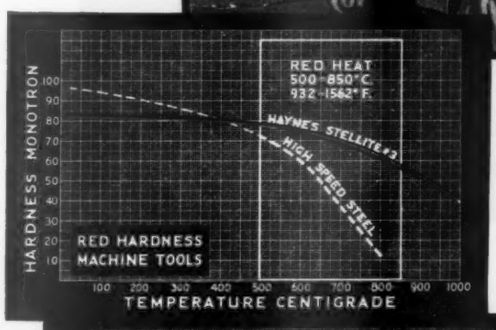
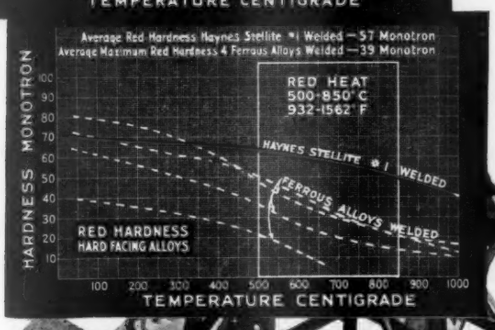
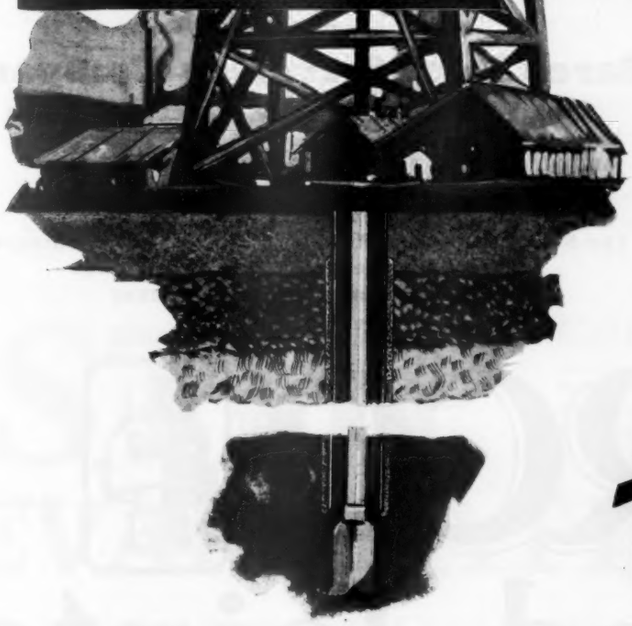
NEW YORK 120 Broadway · HOUSTON Neils Esperson Bldg

TULSA Kennedy Bldg · SAN FRANCISCO Russ Building · DALLAS Republic Bank Bldg







Red Hardness— What Good Is It?

ALL mechanical operations absorb energy and produce heat that is concentrated on surfaces and edges resulting in high local temperatures.

These temperatures are localized in small volumes of metal and may not be visible, but when measured by scientific apparatus, they are often found to be over 900° Fahrenheit. Consequently the *cutting edges and wearing surfaces* of metal cutting tools, pulverizer parts, dipper bucket teeth, grinder rings, oil well drilling tools, and similar machine parts do this work while at a *red heat.*

Hardness is of no value unless it is possessed by an alloy when under actual operating conditions. It is RED HARDNESS and not cold hardness that establishes the value of an alloy as a cutting tool or wear resisting material.

RED HARDNESS is only another name for the ability to resist severe abrasion.

[This is the second of a series of three Ads on this interesting subject—watch for the next one]

HAYNES STELLITE COMPANY

Unit of Union Carbide and Carbon Corporation

UCC

DISTRICT SALES OFFICES

Chicago—Carbide and Carbon Bldg. Cleveland—628 Keith Bldg.
Detroit—4-240 General Motors Bldg. Houston—6119 Harrisburg Blvd.
Los Angeles—1310 Santee Street New York—30 East 42nd Street
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***General Offices*—Kokomo, Indiana**

Haynes Stellite welding rod is also available from any of the 28 District Sales Offices of Oxweld Acetylene Company

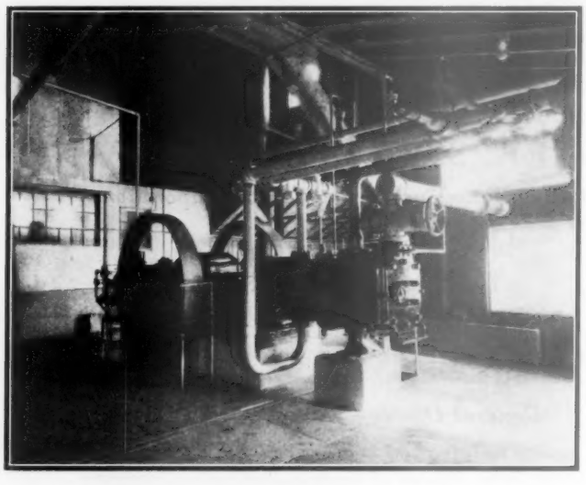
HAYNES STELLITE

Standardization on BARCO pays

The illustration below shows some of the Barco Lubricated Plug Valves used by a large oil company that has standardized on them. Barcos are on duty in the accumulator house, refinery and field—in sizes from ½-in. up, in services from hot gas lines at 200 lbs. pressure to compressor lines with 18 inches of vacuum.

Standardization on Barco Valves pays because they give long, non-sticking and non-leaking service. Maintenance is limited to an occasional turn of the lubricating screw. They can be adjusted to any degree of ease of operation, since the lubricant is not used to force the plug from its seat. The gland can be repacked when the line is under pressure, without danger of the plug blowing out.

Above is sectional view of LCI Barco Lubricated Valve.



Barco Valves work equally well on gas, oil, water and air lines. Special materials supplied for special services, such as handling acids. Our catalog gives complete valve and lubricant data; sent free on request.

Barco Manufacturing Company
1801 Winnemac Avenue, Chicago, Illinois

Agents:

Vinson-Canter Co., Tulsa, Oklahoma
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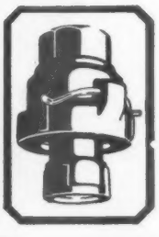
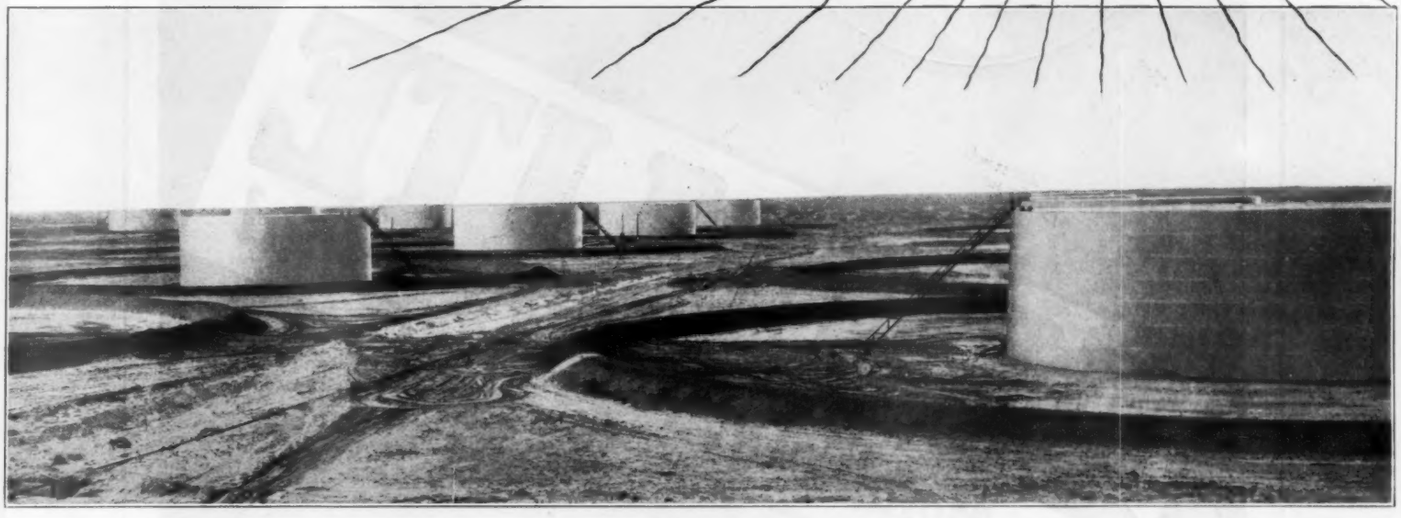
BARCO



Valves and Joints

C&GJ 9-19 Gray

You can DEFY the Sun with WIGGINS BREATHER ROOFS



By equipping your standing storage tanks with Wiggins Breather Roofs you can defy the power of the Sun to rob you of your oil.

For example, a 55,000-barrel tank equipped with the best gas-tight roof storing average Mid-Continent crude will lose over 500 barrels a year. In addition, the evaporation may place the entire tank of oil in a lower price grade through lowering of the gravity, since the lightest and most valuable fractions of the oil escape. Wiggins Breather Roofs prevent most of this loss by allowing tanks to breathe, without forcing air-laden vapor out through the vents. Fire danger is also minimized.

Wiggins Floating Roofs are similarly effective on working tanks. You can investigate both without obligating yourself. Ask our nearest office for information and references to users.

STOP EVAPORATION LOSSES

with WIGGINS BREATHER ROOFS

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Chicago	2128 Old Colony Bldg.	Havana, Cuba	Apartado 2507
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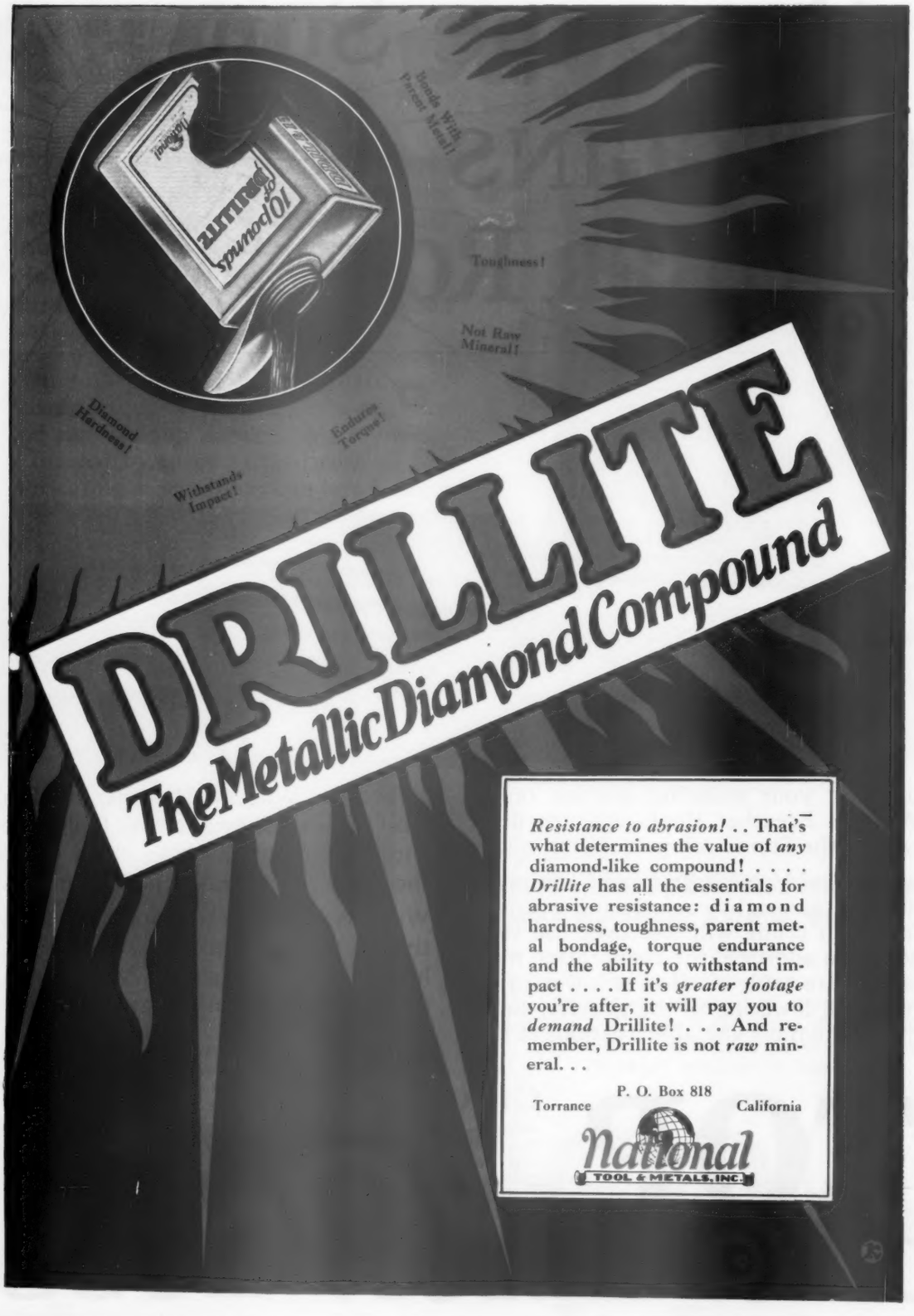
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Resistance to abrasion! . . That's what determines the value of any diamond-like compound! . . . . Drillite has all the essentials for abrasive resistance: diamond hardness, toughness, parent metal bondage, torque endurance and the ability to withstand impact . . . . If it's greater footage you're after, it will pay you to demand Drillite! . . . And remember, Drillite is not raw mineral. . .
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Your Log Book Is Drillite's Best Salesman!

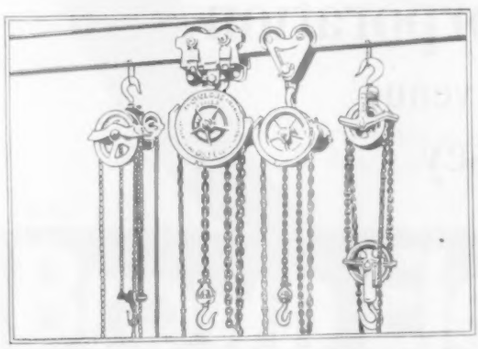
CONTRAST the handling methods of this Thibetan burden bearer with the effortless efficiency of straight-line production.

Witness, in any modernized industrial picture, the absence of manual handling effort: note the certain, ceaseless flow of materials in process.

Analysing this scheme we find material handling equipment the backbone of every production system. Moving is often 90 percent of making! And the economies of Chisholm-Moore moving in many cases represent the basis of production profits.

In the oil fields, the C-M High Speed Cyclone Hoist is particularly adapted. Its dust-proof gear housing, ease of operation and long-time dependability make it a favorite. There is a C-M expert right in your territory who will gladly explain its advantages.

Write for Bulletin 50 describing the various C-M chain hoists. No cost or obligation.



Chisholm-Moore Hoist Corp.
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"To measure is to economize"

It's the cost per foot of *perfect core recovered* that counts!

The fallacy of figuring costs "per dulled head" of coring equipment is apparent to discerning operators—they select Elliott Core Drills knowing the cost per foot of perfect core recovered will be decidedly less.

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ELLIOTT
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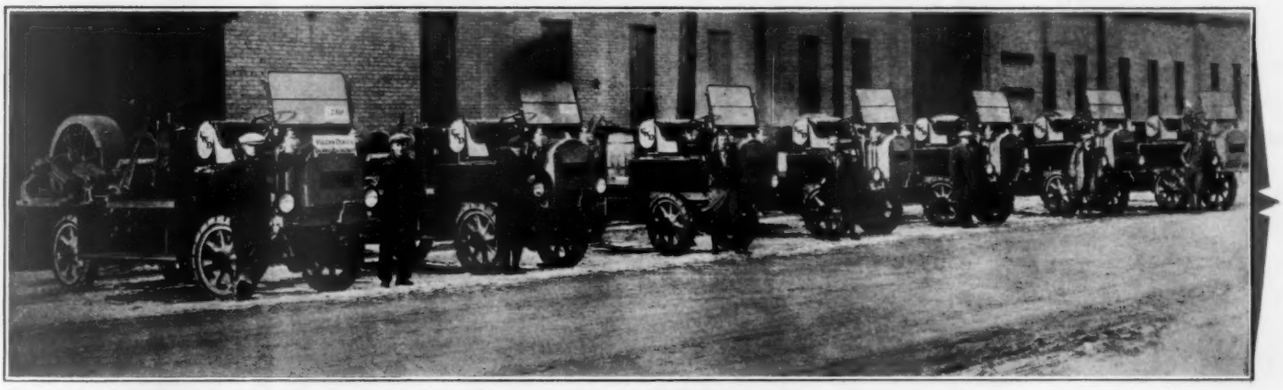
FWD trucks favorites in OIL FIELDS



because...

of sure footed traction

The Halliburton Cementing Outfit mounted on an FWD Oil Field Truck. The Halliburton Company now has 74 FWD's.

FWD Trucks drive and brake on all four wheels. They are made in sizes from 2 to 10 tons . . four wheels . . . six wheels and truck tractor.

TRAVELING through the derrick dotted oil fields you find hundreds of FWD Trucks . . . packed to capacity pulling their way over the poorest kind of ground conditions, getting through where ordinary trucks would be stuck. This is going on daily for FWD Trucks are favorites in this service.

Because the FWD Truck assures, through its exclusive FWD principle, *better traction* and more power, it can haul capacity loads over the "roughest going." It distributes the load and power to all Four Wheels.

Our oil field representatives will gladly give you specific figures on how FWD Trucks are now serving the oil field. They will tell you about their economy of operation . . . about the FWD country-wide sales and service facilities.

The Four Wheel Drive Auto Co.
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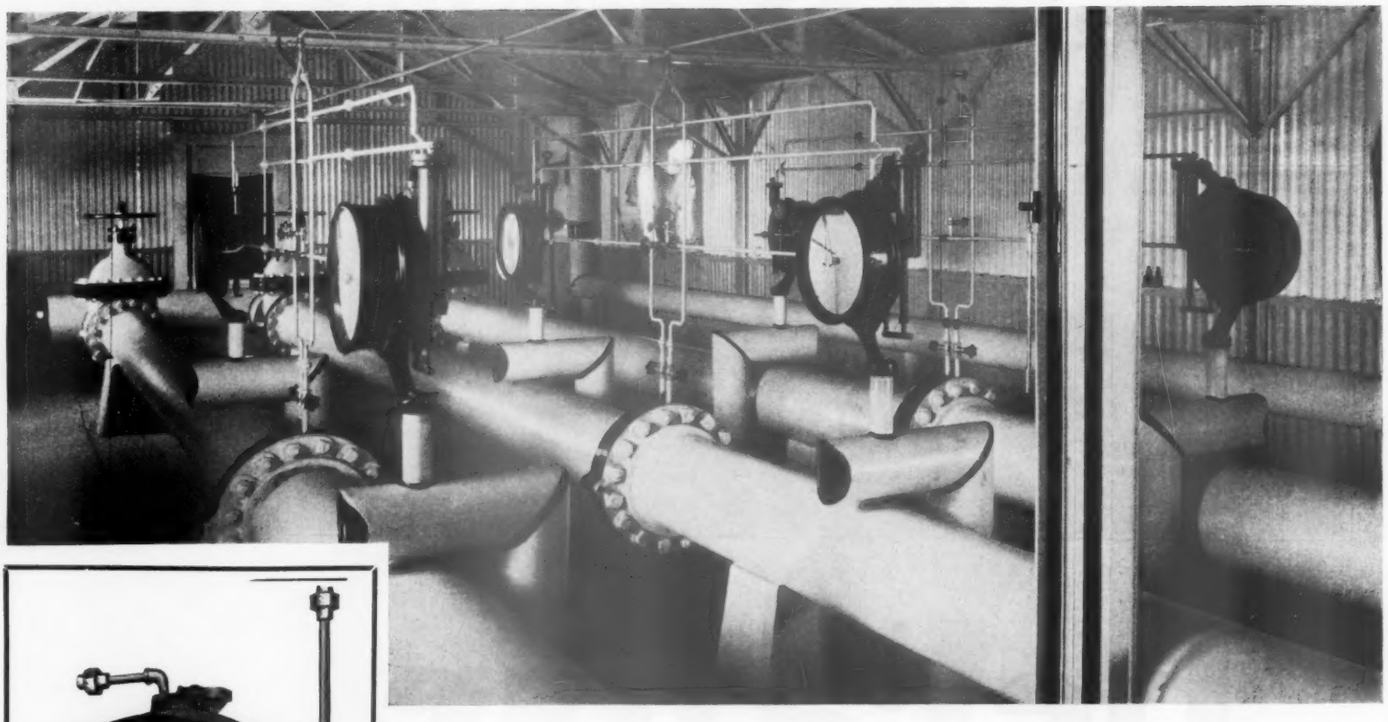
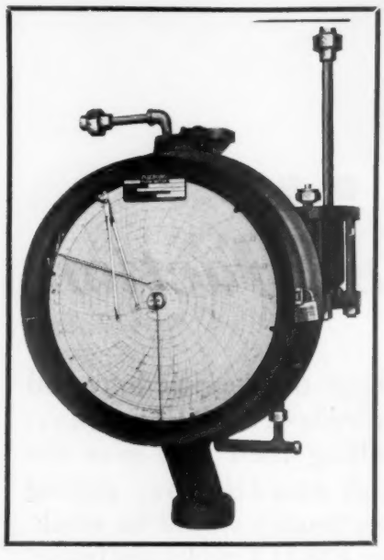
BACKED BY NATION WIDE SERVICE





Above—Foxboro Orifice Meters measuring gas into Oklahoma City. Plant of the Oklahoma Natural Gas Company. The Foxboro Orifice Meter.

See Our Exhibit
Sixth International
Petroleum Exposition
Tulsa, October 5-12
Booths 4, 5, and 6.

Agents for Robinson Patented Orifice Flange Fittings.

For Accuracy in Measuring Gas
...*Look to the Foxboro Orifice Meter*

TO have a chart record of measured gas that is absolutely accurate is an advantage not to be denied.

The Foxboro Orifice Meter will provide you with just such records. *This Foxboro Instrument is inherently accurate.* Uniform multiplication principle by means of a segmental lever gives an absolutely uniform scale chart. The record is accurate throughout the entire range of the chart. No other orifice meter has this feature. Mathematical corrections are unnecessary. Chart records can be depended on.

Field men like the Foxboro Orifice Meter—it is so easy to clean, read, and zero. It is quickly assembled and its interchangeable-parts feature lessens its already low maintenance cost.

Thousands of Foxboro Orifice Meters in the field are giving complete satisfaction. Ask a user about Foxboro Orifice Meters, or write the nearest Foxboro Branch Office for full information.

If you are going to the Sixth International Petroleum Exposition at Tulsa, October 5-12, stop at the Foxboro Booths 4, 5, and 6, and see our exhibit.

The Foxboro Guarantee, sealed to each Recording and Controlling Instrument. It guarantees permanent calibration, perfect workmanship, and performance that is right on the job for which designed.

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• • • STOODITE is the lock that shuts out "Old Man Abrasion"

A bit surfaced with STOODITE wears and wears and wears!!! The hardest formation . . . the most divergent of formations encountered, *are as nothing* to this superhard, easily applied surfacing metal.

Operators everywhere are learning that when STOODITE is used in conjunction with BORIUM (the finest of diamond substitutes)... the bit *goes through!*... regardless

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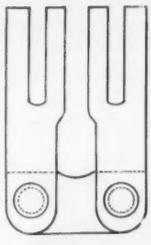
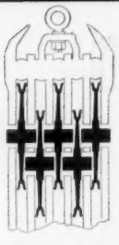
The Giant Regan 76"

Bigger Sheaves

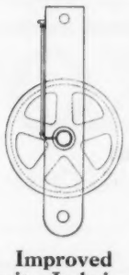


Heavier Lower Clevis



Staggered Construction

Famous Regan Dual Bearings



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4 and 5 Sheaves

—designed for Heavy Loads with High Speeds

More Weight Fast Speed

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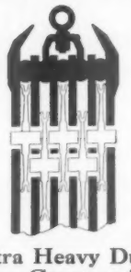

Extra Heavy Duty Strap Construction

Heat Treated Pins and Clevis

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Will your Drilling Valve Shut off ? *if the well blows in*

SHOULD your well blow in, do you *KNOW* that your drilling valve will close smoothly, and positively shut off the flow?

Mud, sand, rocks and other debris striking the seats have ruined many a drilling valve, unknown to the drillers until frantic attempts to close it in emergency cases disclosed the damage.

It costs many thousands of dollars to drill a well, but only the cost of a W-K-M Law Drilling Valve to insure you positive shut-off under all conditions.

Every part in W-K-M Law Drilling Valves is protected against damage by tools, rocks, sand, mud, etc. When open, the fluid passage is free from any shoulder or obstruction that might catch any foreign substance or hang the tools when passing.

The bonnet and valve cavities are sealed tightly against entry of mud, sand or other debris. There is no place for mud and sand to lodge and solidify, thus preventing closure of the conduit.

Gates and seats are automatically wiped clean in opening and closing by the action of the mechanism.

Throat is chamfered to facilitate easy stabbing. Large pick-up holes make it easy to handle and stab.

The stuffing box can be repacked under pressure with valve open or closed.

W-K-M Field Men are equipped with cut-away aluminum models of W-K-M Law Drilling Valves. These can be demonstrated right in your office and the working features explained in detail. Fill out the coupon below and mail to us. A Field Man will call on you in the field or at your office and demonstrate the valve.

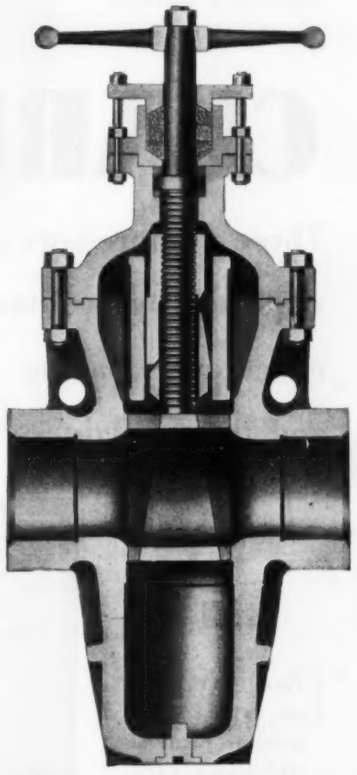

Illustration shows sectional view of interior of W-K-M Law Drilling Valve. Note that fluid passage is as smooth as a piece of tubing. No obstructions that can offer resistance to tools or debris, while valve cavity and bonnet are sealed against entry of fluid or other matter.

W-K-M
LAW DRILLING VALVES
"The Well Savers"

Mark with X, service desired, clip Coupon and mail to us.

W-K-M COMPANY, Inc.
Houston, Texas.

Gentlemen:

☐ Kindly send Field Man to demonstrate W-K-M Law Drilling Valve.

☐ Please send literature covering entire description of W-K-M Law Drilling Valves.

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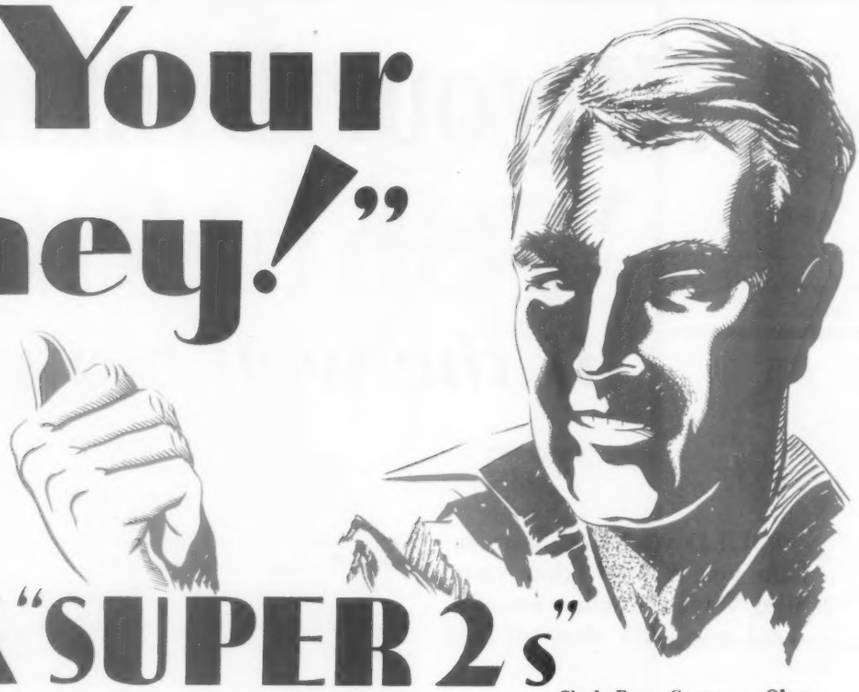
"Save Your Money!"



"Save your money!" is usually just a wisecrack —but it's also the answer to why so many experienced operators standardize on the

CLARK "SUPER 2s"

These compressors actually save a third of the fuel required by ordinary 2-cycle machines . . . . . they effect every saving possible through the simplicity and the ruggedness of CLARK 2-cycle construction.

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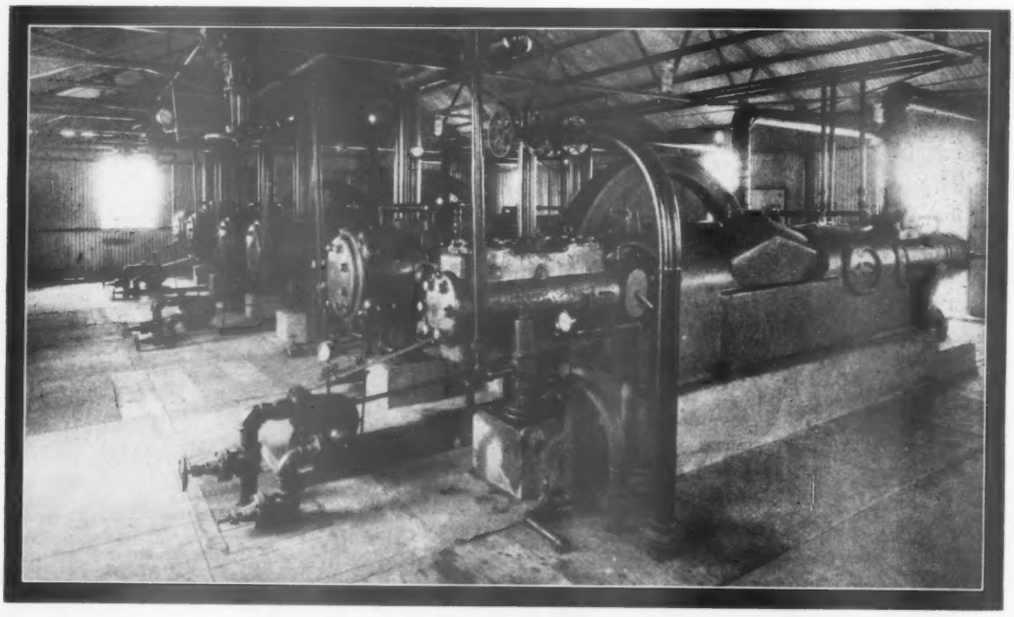
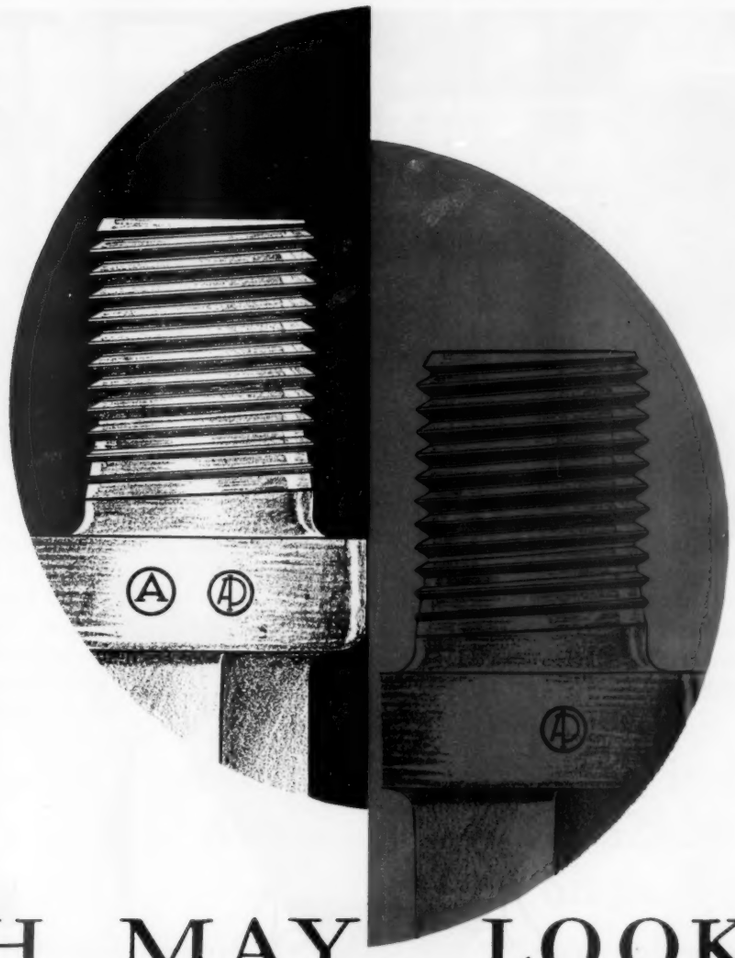
Three 190 H.P. Super 2s in I.T.I.O. gasoline plant at Oklahoma City.



Compressors and Gas Engines

CLARK



BOTH MAY LOOK ALIKE

BUT ONE CARRIES INSURANCE OF QUALITY BECAUSE IT IS *AXELSON*-MADE

THERE IS NO ECONOMICAL SUBSTITUTE FOR QUALITY

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Axelson Machine Company

P. O. Box 337, Los Angeles
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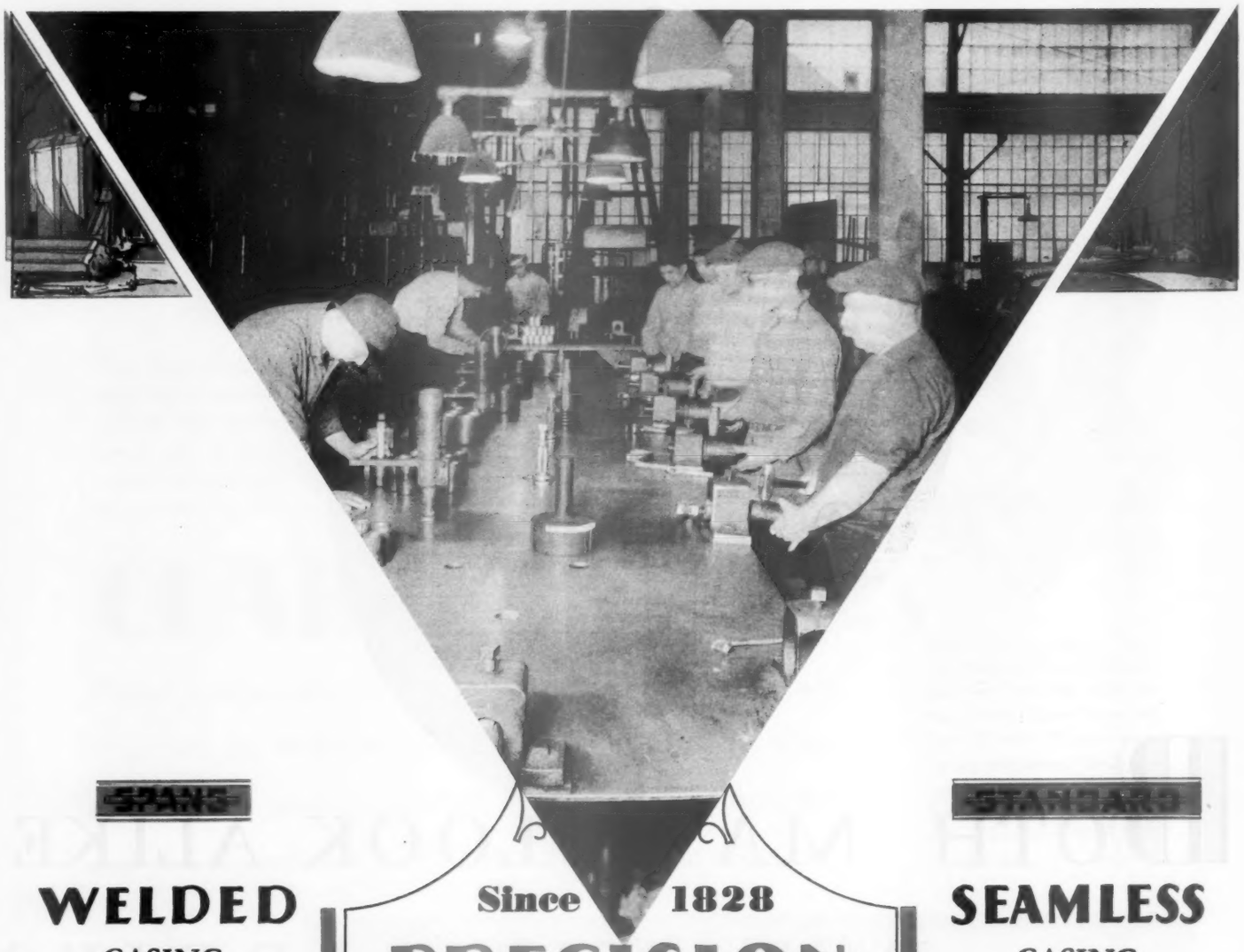
AXELSON SUCKER RODS



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Sizes 1/8 inch to 24 inch O. D.

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assured by rigid inspection

Spang Pipe is a product of pipe makers whose standards of workmanship are rigid and uncompromising.

You can benefit by their precision methods of manufacture by specifying "Spang" Welded Steel Pipe or "Standard" Seamless Pipe in your future order requisitions.

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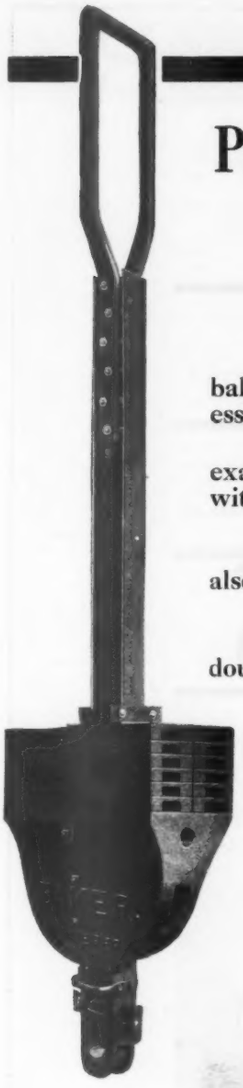

Practical Tests Prove that Baker-Kammerer Pitman Weighted Counterbalance Gives Maximum Production with Minimum Expense

Production engineers who have made a careful study of the results to be obtained by a proper balancing of the up- and down-strokes of a pumping well agree that counterbalancing is an absolute essential to maximum production at a minimum of expense.

The Baker-Kammerer Pitman Weighted Counterbalance was designed and perfected to meet the exacting requirements of production engineers who are, more often than not, compelled to work within unalterable limits from the standpoints of rig construction and installation.

It is highly efficient in these two principal requirements:

First: It smooths out the power stroke, not only reducing the wear and tear on equipment, but also lessening the objectionable volumetric expansion of gases within the pump barrel.

Second: It effects a material power saving by lessening the load to be lifted.

For the purpose of obtaining accurate data a series of tests were made and recorded and the undoubted superiority of the Baker-Kammerer Pitman Weighted Counterbalance was clearly demonstrated.

A Demonstrated Saving, in Power Alone, of $21.30 to $28.50 Per Month, On A Single Well

In making this series of tests, three types of counterbalance were used: Bandwheel counterweight, Pony Beam and Concrete Block Counterweight, and the Baker-Kammerer Pitman Weighted Counterbalance. The results must, necessarily, be given in very brief form here, but they speak for themselves.

Test 1. Depth, 2450 feet. 3 seconds per stroke. 35 barrels per 24 hours. Sucker rod, ¾". Tubing 2½". Stroke 32". Gravity, 18.0. Bandwheel Counterweight, 2700 pounds. Down stroke 2% slower. Kilowatts per hour, 5.59. B-K Counterbalance, 2700 pounds. Upstroke, 6% slower. Kilowatts per hour, 5.0. Saving, .59 KW, plus a smooth, vibrationless action.

Test 2. Depth, 2600 feet. 3.25 seconds per stroke. 35 barrels per 24 hours. Sucker rod, ¾". Tubing, 2½". Stroke, 32". Gravity, 15.0. Bandwheel Counterweight, 2700 pounds. Downstroke, .76% slower. Kilowatts per hour, 5.14. B-K Counterbalance, 5700 pounds. Downstroke, .74% slower. Kilowatts per hour 3.85. *Note that while downstroke in each case is the same, the Baker-Kemmerer Counterbalance saves 1.29 KW per hour.*

Test 3. Depth, 3200 feet. 3.30 seconds per stroke. 80 barrels per 24 hours. Sucker rod, ¾". Tubing, 2½". Stroke, 32". Gravity, 16.0. Pony Beam and Concrete Counterweight, 1400 pounds. Downstroke, 12% slower. Kilowatts per hour, 9.52. Pony Beam and Concrete Counterweight, 2100 pounds. Downstroke, 4% *slower*. Kilowatts per hour, 8.76. B-K Counterbalance, 6920 pounds. Downstroke, 1.2% slower. Kilowatts per hour, 6.48. *At $.013 per KWH, B-K Counterbalance saves $21.30 to $28.50 per month in power alone, to say nothing of saving on equipment.*

The Modern Production Engineer Endorses Counterbalancing

In the words of one prominent production engineer, "The main object of counterbalancing should be to reduce the power required for pumping and to minimize rod stresses and hence breakage by maintaining a uniform motion of the beam."

The superiority of the Baker-Kammerer Pitman Weighted Counterbalance in smoothness of operation, in saving of wear and tear on bearings and other equipment, and in the saving of power has been clearly demonstrated. We will be pleased to send a more detailed statement of these tests on request.

Full Line on Display, Booth No. 99, Oklahoma Building

"The main object for Counterbalancing should be to reduce the power required for pumping and to minimize breakage."

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Tulsa, Oklahoma Houston, Texas

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BAKER OIL TOOLS, INC.
P. O. Box L, Huntington Park, Calif.
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Mid-Continent Distributors
B. & A. SPECIALTY CO.
220 E. Brady St., Tulsa, Okla.
2301 Commerce St., Houston, Texas

"A full theoretical Counterbalancing is a material factor in effecting the maximum production of a well at a minimum operating expense."

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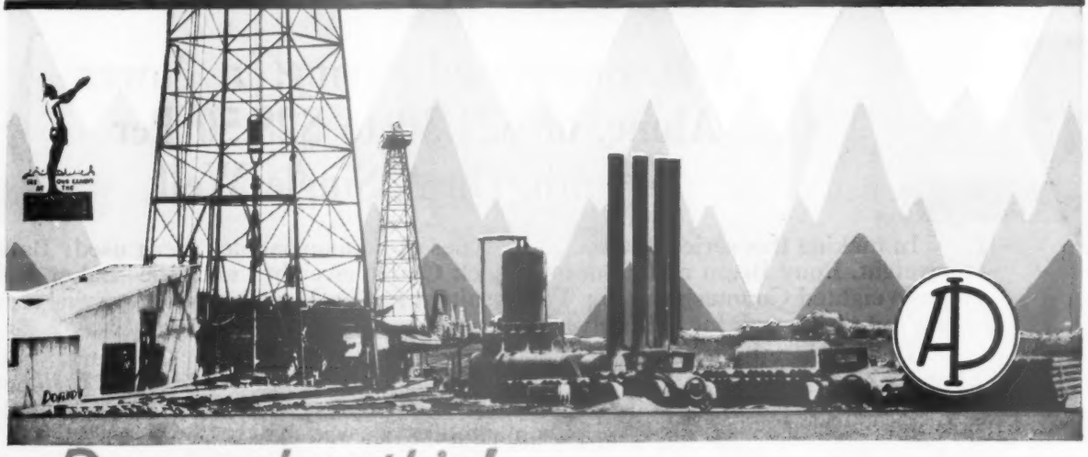
STRUCTURAL STEEL

DERRICKS



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Crude Oil Outlook Is Much Brighter

Highest daily average estimated total production in 1928, week ended Dec. 29, 2,585,844 bbls. Lowest in 1928, May 19, 2,338,241 bbls.

Closing In of Oklahoma City Pool and Action of California in Starting to Enforce Gas Law Important

By Andrew M. Rowley

Highest daily average estimated light oil production in 1928, week ended Dec. 29, 2,158,134 bbls. Lowest in 1928, Mar. 3, 1,927,713 bbls.

Encouraging developments in the crude oil production situation during the past week resulted in a much brighter outlook and caused operators to feel considerably more optimistic as to the future. Of outstanding importance, not only from the standpoint of crude oil production shut in, but because of the important effect upon matters up for consideration elsewhere this week, was the 100 per cent shut-down effected in the Oklahoma City Pool in Oklahoma. This pool, which had been producing 66,000 bbls daily, was pinched in entirely and on Monday of this week was not producing one barrel of oil.

Another move of significance was action taken by the State of California looking toward enforcement of the natural gas conservation law. The State has asked for an injunction preventing operators at Santa Fe Springs from wasting gas. Hearing will be held on Friday of this week. In a case regarded as entirely similar, that of the State of Indiana against the Ohio Oil Co., the courts decided in 1900 in favor of the State. Leading California operators feel the courts will uphold the conservation measure and that its enforcement will become effective within a reasonable time.

Daily average production in Oklahoma for this week will show a decline as compared to last week as last week's average contained 50,045 bbls. from the Oklahoma City Pool. The average of that pool this week will be very small. The increase in Oklahoma last week came from developments at Earlsboro and Little River. A meeting will be held this week in an effort to curtail production there. The increase in California last week resulted from 17 wells being completed at Santa Fe Springs.

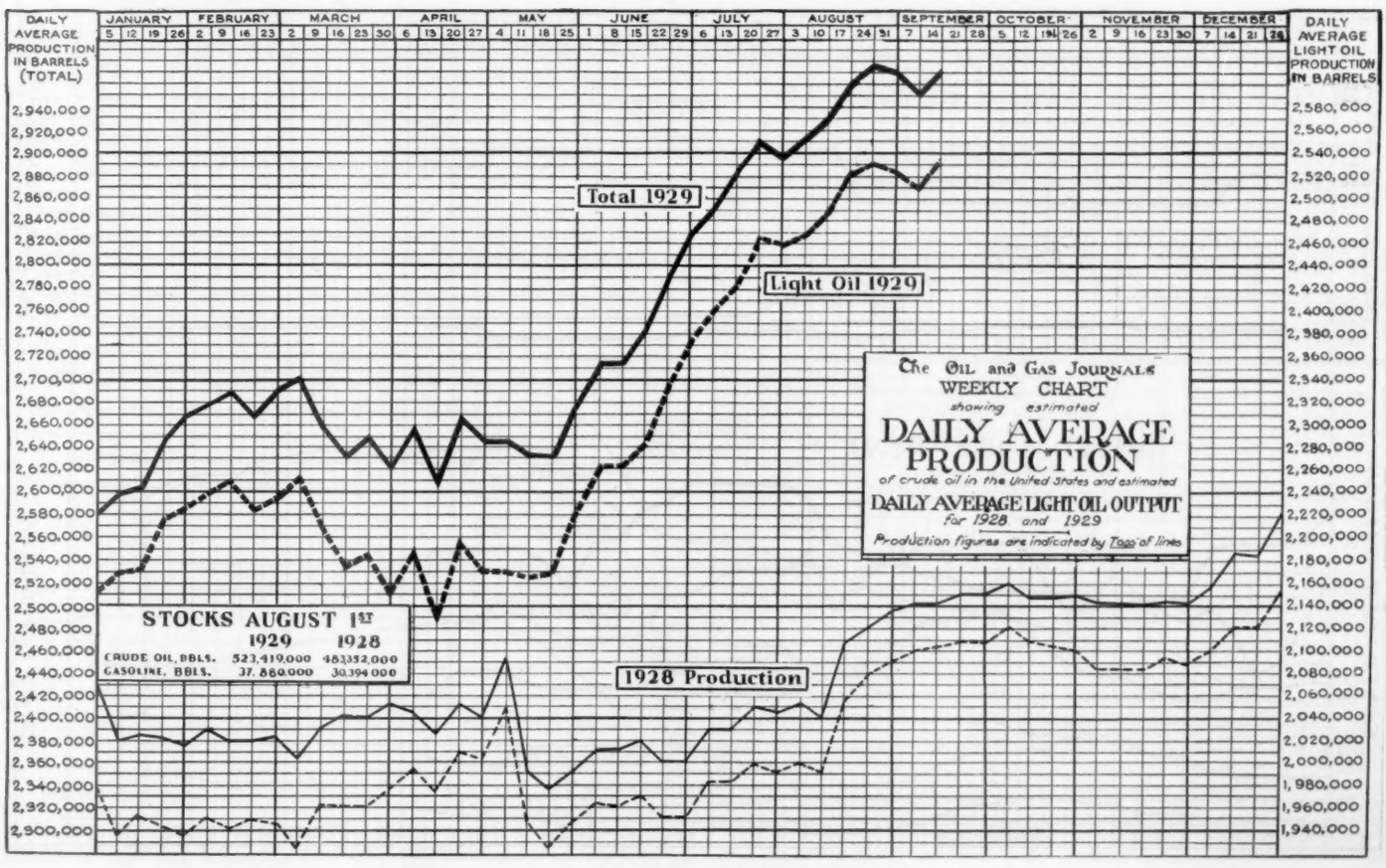
If success attends the contemplated effort to curtail production at Earlsboro in the Seminole area in Oklahoma, the situation in the Mid-Continent area will be must better. With a reduction of production in California assured as soon as the gas conservation law becomes effective, conditions throughout the industry will be in far better shape.

PRODUCTION IN THE UNITED STATES

Estimated daily average production of light and heavy gravity oil in the United States for the week ended September 14, and a comparison with the previous week follows:

	September 14		September 7	
	Light	Heavy	Light	Heavy
Oklahoma—				
Oklahoma City	50,045	.....	52,530	.....
St. Louis-Pearson	65,815	.....	68,010	.....
Seminole	321,870	.....	300,995	.....
Northern Miscellaneous	253,945	.....	258,105	.....
Southern Fields	56,220	.....	56,500	.....
Total Oklahoma	747,895	.....	736,140	.....
West Texas—				
Hendricks	128,175	.....	128,000	.....
Yates	134,144	.....	134,875	.....
Remainder	111,883	.....	111,786	.....
Total West Texas	374,202	.....	374,661	.....
North Louisiana	29,115	6,050	29,235	6,335
Arkansas	19,730	46,150	20,220	45,760
North Central Texas	152,418	.....	154,547	.....
Texas Panhandle	127,407	.....	132,303	.....
East Central Texas	18,330	.....	18,338	.....
Kansas	128,740	.....	129,855	.....
Total Mid-Continent Area	1,597,837	52,200	1,595,279	52,095
Gulf Coast	.....	166,310	.....	165,394
Southwest Texas	.....	70,888	.....	73,533
Eastern	136,000	.....	133,000	.....
Rocky Mountain Area	78,187	.....	80,989	.....
California—				
Santa Fe Springs	285,000	.....	264,500	.....
Long Beach	168,000	.....	168,000	.....
Huntington Beach	43,500	.....	43,500	.....
Elwood	19,500	.....	20,250	.....
Ventura Avenue	63,000	.....	61,500	.....
Seal Beach	42,500	.....	42,500	.....
Remainder of State	101,000	150,000	101,250	150,000
Total California	722,500	150,000	701,500	150,000
Total United States	2,534,524	439,398	2,510,768	441,022
Grand Total		2,973,922		2,951,790

→ **Total Increase, 22,132 Bbls.; Light Oil Increase, 23,756 Bbls.** ←



Spirited Demand for Natural Gasoline

Refinery Gasoline Is Moving Slowly at Spot Prices Covering Wide Range. High Gravity Fuel Oil and Distillates Featured

By W. T. Ziegenhain

An unusually spirited demand for natural gasoline and a consistent strengthening of high gravity fuel oil prices featured the Oklahoma refinery market during the past week. Refinery gasoline continued to be sold over a wide range of prices, with the larger refiners adhering to last week's quotation of 7¾ cents for the 58-60 U. S. Motor grade. There was a slightly improved demand for the low endpoint gasolines, particularly the high gravities, reflecting the need for the more volatile motor fuel in the northern states. Kerosene prices have not performed as many anticipated and have declined. Some material may be purchased one-half to three-fourths cent below the general market of a week ago. Gas oil and furnace distillate have shown an improvement both in demand and in price. The straw colored gas oil and the low cold test gas oils are carrying a premium of one-eighth to one-fourth cent over the price of the dark industrial grade. The high gravity fuel market has also reflected the stronger gas oil market. Fuel oil higher than 24 gravity is very difficult to find in Oklahoma. Refiners are not making these higher gravity fuels from the stills and are hesitant about blending the lower gravity fuels with gas oil to make them. Lubricating oils showed little change. Bright stocks were a little more freely offered and prices tended to weaken slightly. Steam refined cylinder stocks were also more freely offered and at lower prices. Wax was a little more firmly held with prices remaining unchanged.

West Texas Situation

The West Texas refining area has been pointed to, over the past two years, as the source of much of the market unrest. Lower gasoline prices often had their origin there and this area has undoubtedly played a major part in holding fuel oil prices to the low level maintained for more than a year. Prior to May 20, the date of the latest crude change in that area, it was an easy matter for refiners there to swing the market over a wide range because of the relatively cheap crude generally available. On May 20 that situation was materially changed and at present there probably are more refiners losing money in the West Texas area than are making a fair return on their investment and the hazard of this section is not present for the rest of the refining areas.

Using prices on gasoline and other products which are being quoted by refiners operating in the West Texas area, a realization statement shows a refinery loss of 3 cents in each barrel of crude run. In addition to this loss there are expenses such as sales, transportation, overhead and indirect expenses that must be paid. On this basis, West Texas seems removed as a hazard to the immediate future of the Oklahoma refinery market. Following are the detailed figures taken as the basis:

PLANT REVENUE FROM SKIMMING WINKLER COUNTY CRUDE

Yields—	Price per bbl.	Revenue
25% gasoline (U.S.M.)	$0.06½	$0.68
30% gas oil	.02½	.32
42% fuel oil	.45 bbl.	.19
3% loss		.19
Gross revenue		$1.19
Expenses:		
Cost of crude in field	$0.90	
Pipe line charge	.15	
Refining cost	.17	
Total operating cost		$1.22
Refinery loss per barrel run		$0.03

Those West Texas refiners operating pressure stills may be able to show a better realization but the difference will probably not be sufficient to make up deficit in the skimming operation, pay a reasonable return on the added investment and permit any great reduction in the present refined oil market structure.

With West Texas seemingly removed as a depressing factor in the future of the market, there is a much better chance for fuel oil prices to advance. The lighter grades have shown a material improvement, but the great bulk of the fuel is

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REFINED MARKET BAROMETER

Gasoline prices in general, showed no change during the past week although the material was freely offered. Kerosene was traded at higher prices along the Atlantic Coast but the reverse was true in the Mid-Continent. Natural gasoline prices advanced slightly in the Mid-Continent and were well supported by a favorable demand from Gulf Coast refiners and jobbers. Contrary to this trend in the Mid-Continent, California natural gasoline prices weakened slightly.

High gravity fuel oil featured the heavy oil market. There was a scarcity of the product in the Mid-Continent with a much firmer market being established for all grades of fuel in other centers. Neutral lubricating oils showed a decline in price in Pennsylvania while the Mid-Continent and Gulf Coast markets remained unchanged. Bright stocks were more freely offered. Wax demands increased over the week and a better feeling existed regarding the immediate future of that market.

Atlantic Seaboard—The general feeling regarding the refined oil market in the East Coast has improved. Kerosene is being more actively traded. Wax prices were slightly advanced.

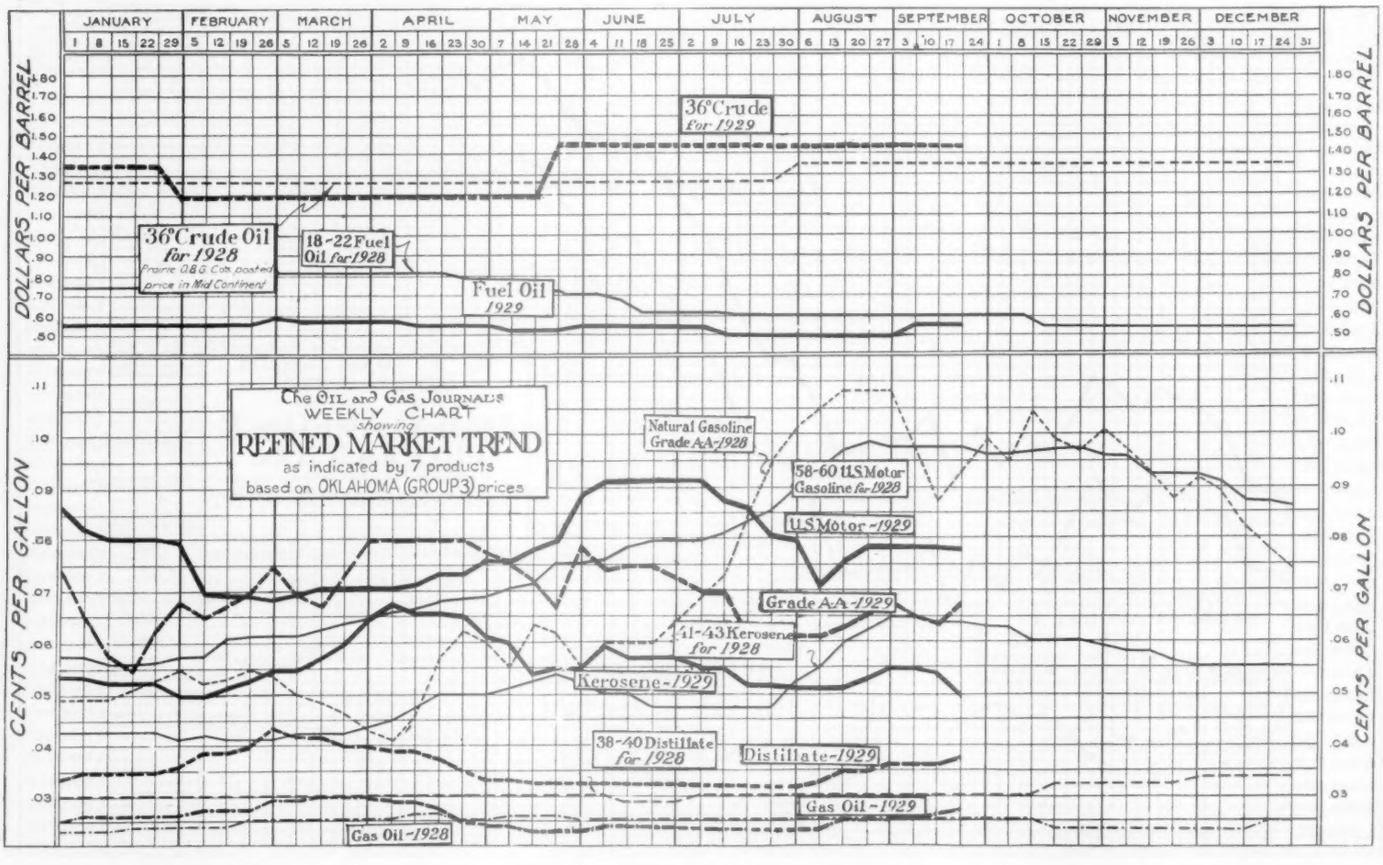
Mid-Continent—Higher natural gasoline prices and a greatly improved demand for fuel oils featured the Mid-Continent market. Kerosene prices acted in the opposite direction. There was a slightly freer offering of bright stocks.

Chicago—Very few changes were made in the price list for refined products here. High gravity fuel oils were in greatest demand.

California—Lower natural gasoline prices reflected the lesser demand but this was the only price change in the California refinery market.

Gulf Coast—There was an increased demand for fuel oils but the entire list of refined oil prices remained unchanged.

Pennsylvania—A reduction was made in the price of the heavier viscosity neutrals but the balance of the lub market remained unchanged. Wax demands have been increased but no price changes have resulted.



Oklahoma City Field Ordered Shut In

Corporation Commission Approves Petition of Operators for 30-Day Suspension. New Pool East of Capital

By W. A. Spinney

The Oklahoma Corporation Commission removed one of Oklahoma's big overproduction threats to the crude oil situation in the past week when it issued an order to shut in the oil production in the new field south of Oklahoma City. The order became effective at 7 a. m., Thursday, September 12, when all oil-producing wells were ordered shut in completely for a period of 30 days. The gauge of the field on that day was 66,137 bbls. from 15 producing wells. One of the wells produced 545 bbls. of gasoline.

W. J. Armstrong, chief conservation officer, is given authority to enforce the order, removing the necessity of a referee or umpire. Tom Vaughn, district conservation officer, probably will be assigned the duty of keeping the necessary check on the field.

The Commission issued the order Wednesday, September 11, effective at 7 a. m., Thursday, September 12, and it included all oil wells located in Townships 11-2w and 11-3w, Oklahoma County, and the territory immediately adjacent thereto.

"When this order becomes effective," the order sets forth, "all wells shall be shut in and not permitted to produce oil in any quantity whatever during the 30-day period, provided in the case of any well located in the said pool so shut in, which during the 30-day period is producing 5 per cent or more water with the oil production therefrom, the owner thereof at his election may produce said well one day a week during said period upon one condition, however, that any day or days so utilized shall be added to the 30-day period for the cessation of the production from said well or wells.

Drilling Regulations

"All wells drilling in said pool at the effective date of these regulations, or commenced therein prior to January 1, 1930, shall be shut down when the final string of casing is set and cemented for a period of 7 days to allow the cement to set, and shall not be brought into production for a further period of 30 days, provided that each operator is allowed the option after the cementing period of 7 days to drill the plug and to bail the test for the purpose of allowing the water and mud to be expelled therefrom. But said test shall not be allowed to produce for a period in excess of 24 hours, which period of one day shall be added to the 30-day shut-in period in the case of said test and that each operator shall give a written notice to the Corporation Commission of the hour and day said final string of casing is set and cemented as herein provided, and the hour and day when each of the said tests shall be brought into production, or of the hour and day when said test is opened for cleaning purposes as herein provided, and the period of time during which said test is so opened.

Providing for Emergencies

"If for reasons beyond the control of the owner of any well located in said pool, such well shall blow in and, because of mechanical difficulties, it shall be impossible to shut the well in immediately as hereto provided, then the number of days that said well is permitted to produce for the reasons set forth in the paragraph shall be added to the 30-day period of shutting in production in respect of such well. If, during the original 30-day shut-in period any well located in said pool shall be repaired, reconditioned or deepened, the number of days employed in such shall be added to the original 30-day shut-in period in respect to such well, provided that any wells so repaired, reconditioned or deepened, may when said repairing or deepening is completed, be opened up for a period not exceeding 24 hours in order to clean such wells of mud fluid, in which event such cleaning out time shall also be added to the original 30-day shut-in period, to the end that all wells in said pool shall be actually shut in a full 30 days' time.

"That all operators in said pool who open up any well or wells under the provision of either of the above sections of this order are hereby ordered, directed and required to immediately advise the Corporation Commission in writing the hour and day such wells were so opened up and closed and the purpose for which such wells were so opened, or the cause thereof.

"Any and all pipe line companies, common carriers and purchasers of crude oil are hereby forbidden to take, accept, run or pay for any oil produced in violation of this order.

"W. J. Armstrong, oil and gas conservation officer in and for the Corporation Commission, is hereby appointed agent of the Oklahoma Corporation Commission to enforce the terms, provisions, regulations and requirements hereby established, with power and authority to appoint such assistants and subagents as may be found necessary in the enforcement therefor."

Operators Asked For It

The order of the Commission was issued upon the petition of the operators in the field. The Commission was informed that the Oklahoma City Field was then capable of producing more oil than the pipe line and tank car facilities could handle. Joseph S. Sidwell, an official of the Prairie Oil & Gas Co., frankly gave

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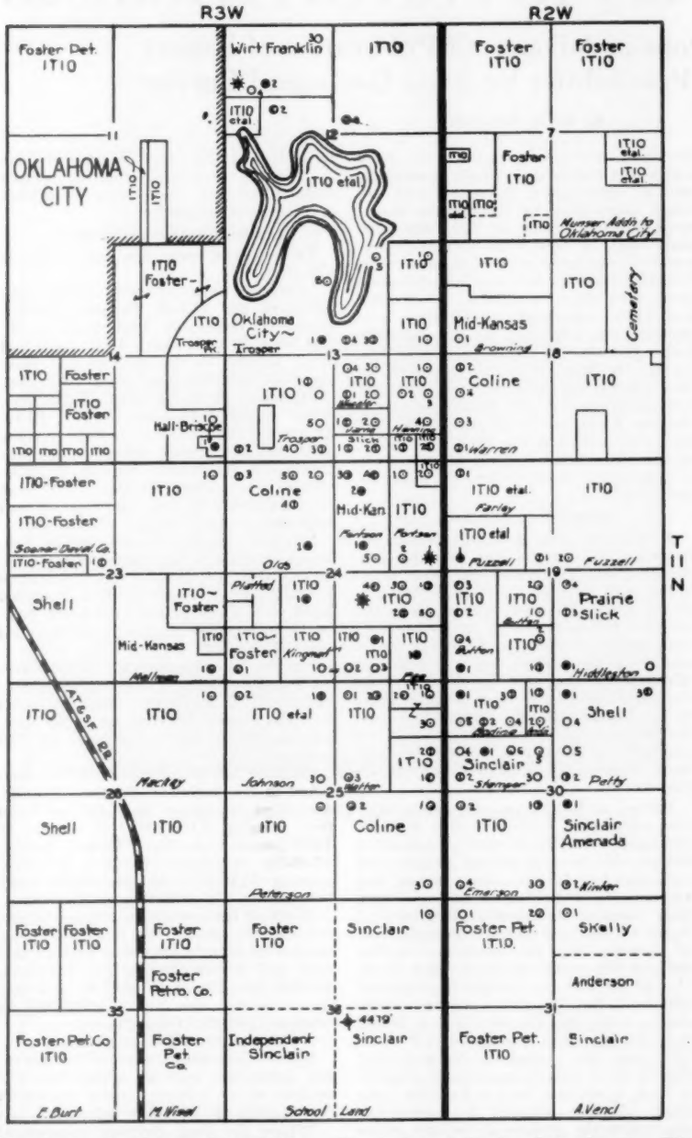

Plat showing development of the Oklahoma City Pool as of Monday, September 16. This pool has been completely shut in by order of the Oklahoma Corporation Commission for a period of 30 days. The 16 completed wells had a daily production of between 75,000 and 80,000 bbls. a day

AIR DERBY, RACES AND AVIATION CONFERENCE ON OIL SHOW PROGRAM

Working for the first time to emphasize aviation and its value to the oil and gas industry, the executive committee of the International Petroleum Exposition to be held in Tulsa October 5 to 12, inclusive, is outlining an aeronautical program of international scope and on the proposition that the exposition shall be established as the center at which the industry and aviation hold conference for their mutual advancement.

At a conference Monday, William G. Skelly, president of the exposition; William B. Way, general manager; R. H. Berry, chairman of the aviation committee; and L. S. Reagan, Ernest Cornelius and Frank Matchett, chairmen of the contest, prize and entertainment subcommittees, made up a list of proposals in connection with the projected aviation activities.

The interest oil men have shown toward aviation, according to Mr. Skelly, warrants placing $15,000 as the sum to be set up for cash awards in the air program. The awards, he explains, are a consideration that the pilots merit in addition to honors accorded in the presentation of a trophy.

"Our leading oil men, who years ago looked into the future and are now highly successful, have their eyes on aviation," Mr. Skelly said at the conference, "and you may be sure that they will not balk when they are asked to raise this sum. I know that they will have the foresight to come into closer contact with the aviation interests for the promotion of their own industry."

The feature of the exposition's aviation program will be an "On to Tulsa" derby. All of the oil companies, supply houses, drilling contractors, refiners, natural gasoline manufacturers, marketers, pipe line companies and other interests allied with the petroleum industry, are eligible to enter airplanes in the derby. The entries are to be made with Ralph H. Berry, general aviation chairman, International Petroleum Exposition, First National Bank, Tulsa.

The starting place for the planes must be 200 miles or more from Tulsa. The decision of the judges will be based on miles per hour made by the contestants. The contest committee is working on the handicaps to be placed and other points to be considered in making the awards.

The International Petroleum Exposition silver trophy and a substantial cash prize will be awarded to the winner of first place in the derby. This aviation trophy will be awarded each year to winners of the derby. On it will be engraved the names of the organizations which have held it.

On five days during the exposition, the oil show plant will be a grandstand for spectacular aerial demonstrations, which include sky writing, night dummy bombing, a dummy airplane attack and counterattack by antiaircraft crews.

Three 50-mile airplane races are planned. All of these will be over a 10-mile course with three pylons to be banked and the finish line over the exposition. The course will be set so that visitors at the exposition grounds will have a clear view of the entire races.

The aviation committee, Mr. Skelly said, has received assurances that many of the leading figures in aeronautics will attend the exposition's aviation demonstrations.

Determination of Production Costs

A Discussion of Methods of Keeping Records of Costs Entering Into Producing Oil and Gas

By James O. Lewis
Dunn & Lewis, Tulsa

No matter how large the production may be, profits cannot be made unless production costs are kept below the price of oil. The individual operator has by himself no control over prices, but he does have much control over costs; therefore, costs are to him the more important factor; because, he can do something about it.

It is quite apparent that since the World War, all commodities including oil, have entered a period of declining prices for which the end cannot be foreseen; therefore, it is obvious that costs must be decreased or else the margin of profit will disappear. Consequently, costs have become of even greater importance than in the past, and the industry must prepare to fight costs unremittingly for years to come. The future will belong to those companies who have been most successful in keeping down these costs.

To reduce costs necessitates that accurate records be kept and intelligently analyzed. It is not sufficient to account for the total money expended, but it is necessary to segregate and analyze the items of expense in such manner as to disclose both waste and efficiency, and to point out ways of greater economy. Accounting is the yardstick by which efficiency is measured.

Reasons for Cost Accounting

There are two purposes for cost accounting. The old purpose was simply to keep track of the money and to show whether or not the business was being conducted profitably. This is the interest of the financial end of the business. The second purpose is to analyze costs for the benefit of the operating end of the company with the view of reducing them. There are thus two rather different viewpoints in keeping costs. For the first purpose, little detail is needed, but for the second purpose, much detail is necessary and the segregation and analysis of the detail is of greatest importance. Since detailed accounting is of rather recent development and as accountants in the past have usually been trained with only the financial viewpoint, much of the cost accounting has been unsatisfactory to the operating department. The accountants have not understood the needs of the operating departments and the operators have not understood accounting and therefore have not benefited from it to the fullest possible extent.

The writer in appraising oil and gas companies has been impressed by this gap between accounting and operating. If there was detail, it was usually so segregated as to be of little value and sometimes was positively misleading. It was usually necessary to reanalyze the items in order to get an intelligent idea of the costs, the possibilities of reducing them or to forecast the costs for future years; however, there has been a marked improvement and cost accounting, along with other phases of oil production, is being put on a basis of efficiency comparable to other industries.

In this article the writer is concerned entirely with cost accounting for the benefit of the operator. The recommendations are not entirely in accord with some of the present accounting practices, nevertheless the writer's experience leads him strongly to the opinion that many prevalent practices need modification.

Three Types of Costs

In general production costs can be segregated under three main classes; namely, lifting expenses, general and administrative expenses, and amortization expenses. Under the first class the direct lease expenses are included such as wages of pumpers, farm bosses, roustabouts and materials used in repairing and maintaining equipment. Under the second class are included such items as main office expenses, taxes, financial charges, etc. The third class, amortization, includes depreciation and depletion charges against cost of property, development cost and other capital charges.

These three divisions are made because the expenses center into three fields of responsibilities, but in accounting there cannot always be inflexible rules of classification and to a limited extent segregation is made on the personal opinion of the accountant as to which category the charge is to be made. In classifying costs and expenses, there are so many borderline and overlapping items that often it is necessary to make arbitrary classification; for example, fittings, pipe, and such material that will last many years should in theory be capitalized and a depreciation charge made against each barrel produced during the useful life of the article so that when the article has been used up, the depreciation charge will equal its original installation cost. This of course would be prohibitively detailed and expensive if applied to every small article and generally would not give information worth the bookkeeping expense; therefore, it is customary to charge small articles directly to lifting expense.

Many similar compromises must be made because of practical considerations for the first principle of cost determination should be whether it leads to reductions in costs greater than the additional expense of the bookkeeping.

This leads to the question of how much detail should be kept. The test is, will it pay the extra expense of bookkeeping, and this depends upon many circumstances. If it is desired to ascertain the cost of using new equipment or to compare the cost of a new method, it may pay to make a special detailed accounting for a period long enough to settle this point and then discontinue it once the facts have been established. Thus there may be special temporary studies in addition to the detail that is always carried.

In general more detail is needed by a

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*This is the sixth of a series of articles on crude oil production the first of which appeared in the August 15 issue of The Oil and Gas Journal.

See Active Play in North Arkansas

Much Leasing Done in Advance of Publication of Report on Oil and Gas Possibilities by State Geological Survey

By D. H. Bancroft

SHREVEPORT, La., Sept. 16. — Oklahoma interests have taken the lead in developing the Arkansas River Valley from the Oklahoma state line east to the St. Francis basin, but others are sending agents to check up on blocking and drilling already done.

These agents will be able to report and describe approximately 100 blocks totaling 1,000,000 acres or more, a half dozen drilling wells and various oil and gas seeps.

Long looked upon with scepticism because of the lack of geology on the area and the easier drilling elsewhere with more promise of favorable results, North Arkansas and the Arkansas River Valley have been neglected by oil and gas prospectors. There has been ample geology for the coal miner and the lead and zinc prospector, but little for the oil man. Lately, however, the State has furnished its geological survey with more funds, enabling it to delve deeper into the oil and gas prospects, and under the guidance of Dr. G. C. Branner a new and thorough survey of the area is to be published together with maps, logs, analyses, etc.

The Oklahomans, anticipating this report, have leased up most of the oil and gas rights on the 70 anticlines mapped by the Arkansas department in co-operation with the United States Geological Survey. Chicago, Boston, Texas and a few Louisiana interests also have gone into the territory and taken acreage and mineral rights.

Two Reasons for Interest

Two factors account for the suddenly increased interest and activity in this area. The first is the success of the Arkansas Natural Gas Corp. in its development of the Clarksville gas district of Johnson County, where it has drilled a dozen wells, seven of which were producers with a total initial capacity of 50,000,000 feet, and built a 10-inch pipe line to Little Rock. The second is the construction of the Richland and Monroe-St. Louis 22-inch gas line.

The Arkansas' line augments Louisiana and East Texas sources of supply for the company's extensive system in South Arkansas and North Louisiana, and it will be necessary to develop new sources for the St. Louis line within the next two or three years. The Monroe and Richland Fields in Louisiana, upon which this line is immediately dependent, will be pulled upon, when this and two other large capacity lines start operations, to the extent of 750,000,000 or more feet per day. Even with their tremendous estimated reserve of more than 6,000,000,000,000 feet and an estimated productive life of 20 years—as of 1921 and 1928, respectively—such drain will shorten these estimates, which were made before the pipe lines mentioned were projected. It must be noted, however, in this connection, that revised estimates have extended the productive life of the Monroe Field 10 or 20 years, and that Richland, never having been the subject of any such detailed study as was made of Monroe, is more or less an unknown quantity.

Primarily a Gas Area

Interest in the Arkansas Valley is based on its potentialities as a gas-producing area. There does not seem to be much faith or hope in it as the location of oil pools. The best geology on it obtainable rather discounts its oil possibilities while treating it favorably as a source of gas. There are oil seeps in Washington and Cleburn Counties, as has been produced on a commercial scale in the Fort Smith-Van Buren-Alma area for years. Gas shows and shows of oil and gas in commercial quantities have been reported in Faulkner and White Counties.

Fifteen or twenty years ago some shallow wells were drilled a short distance northwest of Fayetteville, Washington County, which supplied land owners with light and fuel for their farm homes, and two wells now drilling in the same area have reported the same shallow gas. A third, in Madison County, 30 miles east of Fayetteville, was completed within the last few weeks making slightly in excess of 300,000 feet of gas from around 460 feet. But the first commercial success outside the Fort-Smith-Van Buren area in Sebastian and Crawford Counties was the Arkansas Natural Gas Corp.'s development in Johnson County.

Five sands are logged by this company. A note attached to memoranda concerning the geology of the area states that generally speaking the sands are lenticular and probably will be found not to extend far. Their known thicknesses have been fairly well determined thus far, but porosity and other controlling factors have not been made the subject of much detailed study.

Classification of Sands

These sands have been classified as follows:

"Shallow Sand.—Around 1,100 feet, found in No. 1 Self, Section 14-10-24, completed August 8, 1928, making 14,800,000 feet, total depth 1,075 feet; and No. 1 Hudson, in the same section, making 4,073,000 feet, total depth 1,085 feet.

"Hudson Sand.—Around 2,400 feet, found in No. 1 Houston, Section 15-10-24, completed November 8, 1928, making 1,500,000 feet, total depth 2,440 feet; and No. 1 McPherson, Section 10-10-24, which tested 7,000,000 feet in 17 feet of sand, 2,430-47 feet, cased it off and went deeper with results to be noted.

"Russell Sand.—Around 2,800 feet, found in No. 1 O. L. Hudson, Section 14-10-24. Got the Hudson gas (estimated 5,000,000 feet), cased it off and drilled 2,795 feet, where it was completed, making 7,000,000 feet at 1,050 pounds, total depth 2,795 feet.

"Qualls Sand.—Around 3,025 feet (writer does not have data on this well); and in No. 1 McPherson, above referred to, which was finished at 3,453 feet, gauging 9,759,750 feet of gas at 390 pounds.

"Kirwin Sand.—Around 3,125 feet, found in No. 1 Bynum, Section 13-10-24, completed November 20, 1928, at 3,126 feet, gauging 7,194,000 feet of gas at 1,250 pounds; also No. 1 Kirwin, Section 16-10-24, completed October 1, 1928, gauging 4,134,000 feet, total depth 3,361 feet, and in No. 1 McPherson."

South of these wells, in Logan County, the company drilled No. 1 W. H. Parks, Section 26-8-24, to 4,600 feet without success, and is now drilling No. 1 Hanna, Section 26-7-23, at 3,163 feet, and has made location for No. 1 McFaddin in Section 15-19-21, Pope County.

Summary of Doctor Branner

Dr. G. C. Branner, head of the Arkansas Geological Survey, summarizes the geology of the territory under discussion for The Oil and Gas Journal as follows:

"Since the area contains commercial gas sands it is possible that oil also may be found and at this time a number of

(Continued on Page 127)

Problems of Winkler County Solved

Unusual Conditions Challenged Skill of Engineers Who Have Developed Many Successful New Methods

By L. G. E. Bignell
Petroleum Engineering Editor

All of the West Texas oil fields have numerous problems for the production superintendents and engineers to solve but no area presents more of them than the Hendricks Pool in Winkler County which has been drilled up for some time and has been showing a steady decline in oil production due largely to water encroachment.

It is a fact that water made its appearance in that pool very early in the life of the field and the water seemed to break across into wells that were located within the boundaries of leases that were producing good oil. This was probably due to uncertainty as to the actual depth of the hole below surface or lack of knowledge as to its degree of verticality, for it is an admitted fact that few fields have had as many crooked holes as the Winkler area.

Again this was a case of placing speed ahead of everything else and the drilling contractor and the men on the derrick floor working for him were more concerned about the footage per tour than they were about the degree of deflection of the hole.

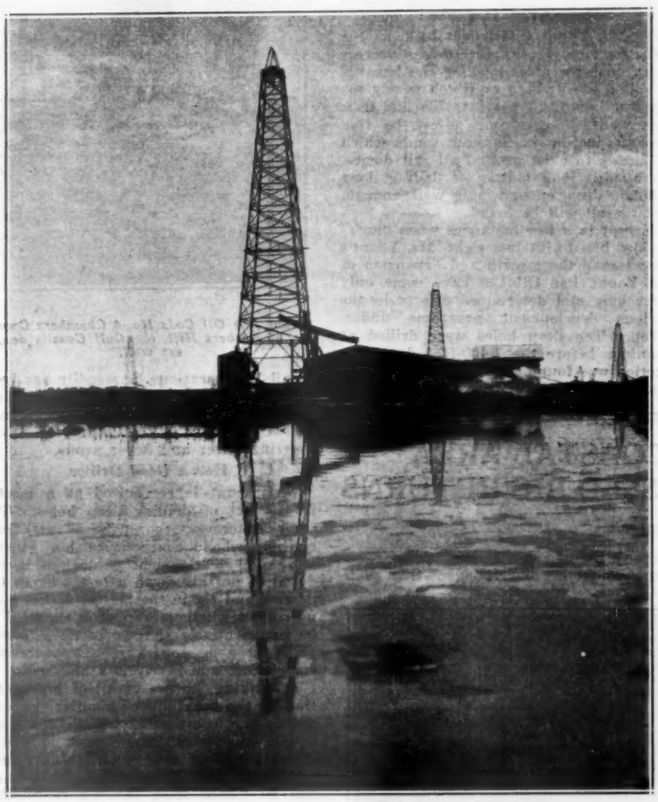
This poor drilling practice has been felt in many ways since the flush production period has passed and it has become necessary to tube and pump the wells.

Unusual Pumping Methods

Pumping, as a matter of fact, in this field is not done in the usual way that is common to other pools where it is necessary to actually raise the fluid to the surface by mechanical means, for it seems quite enough in this field to simply agitate the wells during a portion of the day and they will then flow natural for the balance of the time.

Undoubtedly this is due to the fact that the hydrostatic head of the water that is produced with the oil in the Hendricks Pool is great enough to actually raise the fluid to the casinghead, and if the column is lightened slightly by agitation the gas will be able to lift the oil and water out of the hole and into the water knockouts and the oil and gas separators.

In as much as some wells produce as much as 99.2 per cent water the water problem is a very serious one in this field, not only as it must be dealt with in so far as separating oil and water is concerned, but the disposal of the water afterward is a problem of major importance.



Salt water pond in the north end of the Hendricks Pool, Winkler County, Texas.

Common practice in the field is to raise the working barrel just as high in the well as possible, and it is sometimes placed at only 1,000 feet below the casinghead in a 2,500-foot hole. Other wells are tubed to a depth of 1,500 feet and a few still lower, but general practice is to raise the working barrel just as high as possible in the hole.

This is done because it makes it much easier to tube the crooked holes, and it is much less destructive of rods and tubing due to friction wear during the pumping period, and lifting costs are also correspondingly lower. In this area most of the pumping is done by electric power bought upon a metered basis and this last item is therefore one to be given very serious consideration.

Many devices have been tried to assist in flowing the wells by natural methods and some of them described by B. F. Mosher, field engineer for the Atlantic Oil Producing Co., with headquarters in Wink, are worthy of consideration for they may offer ideas to operators in other fields who have similar production problems.

Ten wells were selected for a series of tests under pumping and flowing conditions and one of the first things tried was different means of tubing the wells. In one group of wells the 2½-inch tubing was run inside the 8¼-inch casing and the end of the tubing finished with a 2½-inch to 6⅝-inch swaged nipple, the larger end of the nipple being turned down and this forming a partial packer in the casing.

This method of flowing showed some rather interesting results for it was found that water only would be discharged through the tubing at the surface while the oil with about 8 to 10 per cent water would be produced in the casing or outside of the tubing.

The tubing was sometimes made up into tapered strings running from 2-inch diameter at the bottom of the well to the 4-inch tubing at the top and it was found that this tapered string of pipe could be used to build up pressures of about 250 pounds per square inch at the well head while between tubing and casing the pressures were from 150 to 600 pounds per square inch.

The flow of the well was controlled at the casinghead and the production usually lead away from the well through two 6-inch lines in which were placed an adjustable choke on one side and an adjustable gate on the other.

Water Knock Out Systems

The fluid from the well being largely water it was found that water knock out systems were of great advantage and numerous methods were tried to accomplish the same purpose, i.e., to remove as much water from the oil as possible before it went to the settling and treatment tanks where it was steamed to break up the emulsion and the pipe line oil sent to the lease stock tanks.

In general principal all knock outs are the same and operate upon the well known that increase in cross sectional area will reduce the velocity of the stream and when this velocity is reduced it is found that the water would tend to flow along the bottom of the section of big pipe while the oil would raise to the top and could be skimmed off by any suitable means and with its entrained

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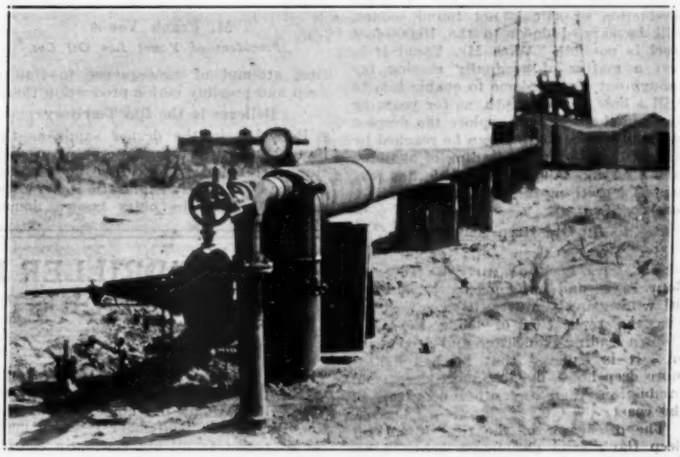
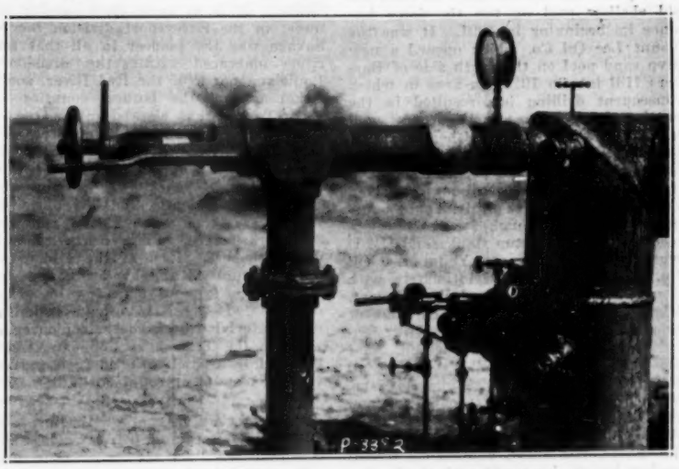


Type of water knockout used by the Amerada Petroleum Corp. in Hendricks Pool, Winkler County, Texas.



Close up view of water knockout used by the Amerada Petroleum Corp. in Hendricks Pool.

He's Not Afraid to Drill 'Em Deep

M. Frank Yount of the Yount Lee Oil Co. Has an Outstanding Record as a Salt Dome Explorer on Gulf Coast

By Neil Williams

Someone has said that sooner or later a 10,000-foot hole would be drilled on the Gulf Coast.

It is generally conceded that if such a test is put down it will be by M. Frank Yount of Beaumont, Tex.

It also is taken almost as a matter of fact that if oil is found at that depth it will be this same man who will get it.

So, when the Gulf Coast's deep production, and at that time, deep hole record was broken early in June by a 5,000-bbl. well southeast of the old Jennings (Evangeline) Field from a sand at slightly less than 7,400 feet, it was Mr. Yount, through his company, the Yount Lee Oil Co., who did it.

Since then the surpassing of this depth record, twice in succession by the same company, once at Jennings and more recently at Barbers Hill, has made operators realize that a 10,000-foot hole on the Gulf Coast is more than a fantasy of the future and rather an early reality.

Whether the latter two tests will open new production depths remains to be learned. No. 4 Crowley, on the north side of Jennings, at this writing is standing at 7,563 feet waiting on drill stem to drill plug at 7,544 feet and test a sand showing oil, the deepest oil sand ever found on the Gulf Coast. The Barbers Hill test, No. 4 Chambers County, is drilling ahead below 7,760 feet.

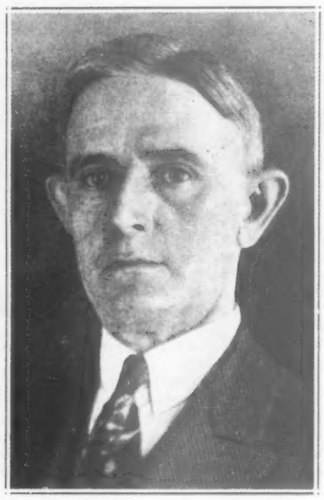
That these two tests, in the event oil production or salt is not found sooner, will be carried down to the 10,000-foot level is possible. With Mr. Yount it is just a matter of gradually moving far enough out from a dome to enable him to drill a hole to that depth, as for years he has had the desire to explore the deepest sands on the coast that can be reached by the drill, and only the finding of shallower oil, hitting salt or a bad hole has prevented him from fulfilling this wish before now.

An Old Deep Sander

Mr. Yount's deep sand exploration, which dates back as early as 1908 at Sour Lake, and his consistently successful wildcatting ventures, have gained for him the reputation of being the Gulf Coast's leading wildcatter and deep driller. It is believed that he has drilled more deep holes, opening more deep sand production, than any other operator on the coast.

The discoverer of the first important deep flank sand production below 4,000 feet at Sour Lake, in 1916 Mr. Yount went to Spindletop and in 1925 opened a new but deeper Spindletop which in three years has yielded more oil than the old shallow pool on top the dome has since its beginning in 1901. It was the Yount Lee Oil Co. which opened a new deep sand pool on the south side of Barbers Hill late in 1928, an area in which consequent drilling has resulted in the putting down of the coast's deepest well to date, and, lately it was the same company which stepped out at Jennings and got the coast's deepest producing well.

Since the Sour Lake discovery, which really meant the start of Mr. Yount's successful career, although for the development of the Spindletop flank sands he is more widely known, the Yount Lee Oil Co. has been associated intimately with deep sand wildcatting and development. Flank sands and the lower horizons of Sour Lake, Spindletop, Barbers Hill, Jennings, Hull, Liberty, High Island, Anse La Butte, Hackberry and Welsh have all felt the touch of his bits and have rewarded his efforts with production, and one of Mr. Yount's most recent flank-sand wildcatting programs, that at Anse La Butte, has added another successful undertaking to his credit with the finding of an oil sand there below 3,600 feet. Previous production at Anse La Butte, one of the oldest domes on the coast, has been shallow, on top the dome, and never of importance, and the drilling of the Yount Lee Oil Co. off the side marks the first attempt of consequence to find a deep and possibly major production there.



M. Frank Yount
President of Yount Lee Oil Co.

Believes in the Old Territory

Believing in the deeper sands as the best opportunity for new coastal production, Mr. Yount has centered most of his interests in the exploration for the sands flanking the older known domes and in building up holdings around these domes on acreage, much of it formerly abandoned as worthless when known to be out of the limits of shallow sand or cap rock production.

Mr. Yount's seeming "luck" in finding production in nearly every one of his ventures and particularly in several of those spots on which other companies had drilled unsuccessfully or had condemned is one of the interesting characteristics of the Yount Lee Oil Co.'s wildcatting. The story of the new Spindletop, its discovery and rise on acreage once drilled for shallow oil and abandoned, had its real beginning with Mr. Yount's faith and vision in the existence of deep sands flanking the dome around the old cap rock area which led to his drilling the discovery well just a short distance from a dry hole drilled by another company. So it was with the discovery of deep oil on the south of Barbers Hill and others.

Persistence Has Won

To Mr. Yount this is not luck, as the term commonly is applied to the success of an operator after bucking the hazards of salt dome drilling in which nearly every test is a rank wildcat. To him it is the result of persistent effort to find deep production in flanking sands which he knows to exist around all salt domes. To him, it is a matter of drilling long enough, deep enough and well enough, and the oil will be found.

Except in a few instances when "luck" enabled him to hit just right, Mr. Yount's success and the growth and expansion of the Yount Lee Oil Co. have come only after long and determined efforts in the various development programs undertaken. Ten deep holes were drilled at Jennings before the 7,400-foot deep production was found at that dome and more than a million dollars have been spent so far in the undertaking. It is first nature in Mr. Yount's makeup never to quit.

Although so far Mr. Yount has drilled only three tests below 7,000 feet, he has to his record a long string of wells between 5,000 and 6,000 feet and a number as deep as 6,700-6,900 feet, the deepest any holes had been put down on the Gulf Coast until the drilling of the two Jennings tests and the one at Barbers Hill.

Yount Lee Oil Co.'s No. 4 Chambers County, at Barbers Hill, the Gulf Coast's deepest well.

In all his operations he steadily has been going deeper and deeper, and, particularly at Spindletop, where he has done most of his development, he constantly is uncovering lower and lower sands.

He's a Good Driller

Mr. Yount is recognized as a master in the art of drilling deep holes. The same exactness, thoroughness and precaution which characterize his general work and development guide him in the detail of putting down a test. From the derrick and rig to the bottom of the hole, no matter whether the test is expected to be comparatively shallow or deep, everything is done to insure the successful completion, and rarely is a hole lost.

A striking feature of all of his operations is the heaviness of his derricks, rigs and other equipment. With his own supply company, Mr. Yount provides only the most modern machinery and everything is standardized so that parts can be moved from one rig to another with only a statement of what is needed. New to most operators on the coast is his use of four-post draw works which characterize nearly all his set-ups.

Yount System of Running Pipe

Extra time and expenditure is nothing to Mr. Yount when it comes to safeguarding a hole and completion, because in his mind every test worth drilling is worth saving. An example of this is his practice of providing the equivalent of three strings of casing in every hole with a fluid packing between each, this giving the effect of protecting the hole with a string the thickness of three together. This is accomplished with the setting, in addition to the regular casing in the hole, of a liner from the top of the hole to the top of the screen and a further string of tubing inside that. The space between each string is pumped full of fluid. Although most operators only

(Continued on Page 129)

PIONEER DRILLER IN COASTAL AREA ALWAYS JUST MISSED BIG RETURNS

By D. H. Bancroft

SHREVEPORT, La., Sept. 16.—Passage to the reward of all good wildcatters of W. A. Savage at his home in Charleston, W. Va., on September 7 was a matter of regret to all old timers in the oil and gas industry wherever they may be for few men had a wider acquaintance, especially in the Texas coastal and Shreveport districts, and in the eastern fields. It is of more than passing interest in the Shreveport division for Al Savage was the pioneer in all that territory embraced within the division—Louisiana north of the Red River, south Arkansas and the border counties of East Texas—that showed oil. One of these old timers, learning of Mr. Savage's death, remarked: "He was 88 years old, or rather young, for the last time I saw him, 8 years ago, he wore the same youthful smile and his optimism was the same as when I first met him 30 years before. His death reminds us of Cooper's "Last of the Mohicans" for truly did Al and his brother, Jesse, represent a type of man few of whom remain. If those who have benefited in a material way from their pioneering work in the Texas and Louisiana fields would drop a small coin on their graves, what a monument could be built."

It was 35 or 40 years ago when the Savage brothers left West Virginia and migrated to Rockland, Texas. They had heard of the "old tar well" near that village and how the early settlers got from it a substance with which they greased the wooden skeins of their ox-drawn wagons, and thought this substance might have been a very heavy oil. They bought some land near the lo-

W. A. Savage

(Continued on Page 129)

Crude Oil Stocks Increase In July

Largest Monthly Gain of the Year Recorded in Government Report. Refinery Gasoline Shipments 14.4 Per Cent Greater

By C. O. Willson

The oil business started out the last half of 1929 with the largest monthly increase of the year in its crude oil inventories, according to the latest report of the Bureau of Mines which covered the July operations both in the production of crude oil and refined products.

The July report shows that crude oil stocks for the entire United States jumped from 515,416,000 obls. on June 30, to 523,419,000 bbls. on July 31, an increase of 8,003,000 bbls. for the month. This compares with an increase of 3,763,000 bbls. in June and brings the total excess of crude oil for the first seven months of this year to 39,018,000 bbls. The July increase was one of the largest in the history of the oil industry. The figures on crude oil stocks include some California fuel oil from refineries.

A study of the detailed report of the Bureau of Mines, which is published on page 179 of this issue, shows that the large excess accumulation of crude oil was due to an increased supply rather than any change in the demand. The daily demand for crude oil in July was slightly less than in June, due to the fact that refiners reduced their crude runs to stills from 2,813,000 bbls. daily in June to 2,772,000 bbls. in July, a decrease of 41,000 bbls. daily. This was practically offset by increases in other uses.

Crude Imports Less

The greater production of several domestic fields is responsible for most of the increase in storage. Imports of crude oil showed a decline averaging 219,800 bbls. daily in June and 197,480 bbls. daily in July. The imports of crude oil from South American fields are not showing the large increase this year that they did in 1928. For the first seven months of this year the imports were only 3,905,000 bbls. greater than the same period last year.

As was clearly shown at the time in The Oil and Gas Journal weekly estimates, crude oil production in the United States increased rapidly in July over June. The government figures show that practically all of this increase was surplus oil which was not needed to meet current consumption requirements and was run to storage facilities already burdened with a steady accumulation since the first of the year.

With August production substantially greater than in July it is certain that the August report of the Bureau of Mines will show even greater crude oil stock accumulations for that month and this situation justifies the measures now being taken to bring supply closer to the current demand by a complete shut-down in one of the new Oklahoma fields coupled with curtailments in some of the other flush pools.

Increased Production

California, Oklahoma and Texas, the three principal crude oil producing states, all increased their production in July over June. California production increased 43,500 bbls. daily in July, Oklahoma 42,100 bbls. daily and Texas 52,300 bbls. daily. Among the smaller producing states, Kentucky production increased 4,700 bbls. daily in July and Michigan 4,200 bbls. daily.

The increased production in Texas, Oklahoma and Kansas was responsible for the reversal in crude stocks during July. In June the demand for crude oils east of California exceeded the supply and there was a small decrease in storage, a development which resulted in considerable optimism regarding the market outlook for Mid-Continent light gravity crude oils. The increased production in July however has materially changed this situation. Of the total increase in crude oil stocks of 8,003,000 bbls., 4,254,000 bbls. was east of California. This shows that the demand in July for Mid-Continent crude oils did not increase in line with the enlarged supply so that tank farm stocks were again increased.

The California situation showed no improvement over June. A total of 3,749,-

(Continued on Page 128)

CRUDE OIL AND REFINERY PRODUCTS SITUATION SUMMARIZED

(Bureau of Mines Reports—First 7 Months 1929 and 1928)

SUPPLY AND DEMAND—CRUDE OIL (Bbls.)

First 7 Months	Total Supply	Total Demand*	Excess Supply	Excess Pct.	Domestic Production	Imports	Domestic Demand*	Exports	Stocks June 30
1929	594,054,000	555,036,000	39,018,000	7.0	579,442,000	49,974,000	540,424,000	14,612,000	523,419,000
1928	522,158,000	504,649,000	17,509,000	3.4	511,816,000	46,089,000	494,307,000	10,342,000	483,352,000
Increase ..	71,896,000	50,387,000			67,626,000	3,905,000	46,117,000	4,270,000	40,067,000
Increase	13.8%	9.9%			13.2%	8.4%	9.3%	41.3%	8.3%

*Derived from government data. Includes some California fuel oil.

SUPPLY AND DEMAND—REFINERY PRODUCTS—GASOLINE (Bbls.)

First 7 Months	Total Supply	Total Demand	Excess Supply	Excess Pct.	Domestic Production	Imports	Domestic Demand	Exports	Stocks May 31
1929	248,882,000	244,068,000	4,814,000		244,433,003	4,449,000	209,032,000	35,036,000	37,880,000
1928	210,438,000	213,360,000	*2,922,000		207,924,000	2,514,000	182,337,000	31,023,000	30,394,000
Increase ..	38,444,000	30,708,000			36,509,000	1,935,000	26,695,000	4,013,000	7,486,000
Increase	18.3%	14.4%			17.5%	77.0%	14.6%	12.9%	24.6%
KEROSENE									
1929	32,440,000	32,644,000	*204,000	.6	32,320,000	120,000	21,038,000	11,606,000	8,797,000
1928	34,331,000	33,576,000	775,000	2.3	34,206,000	125,000	20,392,000	13,184,000	8,470,000
Increase ..	†1,891,000	†932,000			†1,886,000	†5,000	646,000	†1,578,000	327,000
Increase	†5.5%	†2.8%			†5.5%	†4.0%	3.1%	†13.4%	3.8%
LUBRICATING OIL									
1929	20,183,000	20,999,000	*816,000	*3.9	20,159,000	24,000	14,230,000	6,769,000	7,524,000
1928	20,221,000	20,414,000	193,000	.9	20,214,000	7,000	13,523,000	6,891,000	7,667,000
Increase ..	†38,000	585,000			†55,000	17,000	707,000	†122,000	†143,000
Increase	†0.2%	2.8%			†0.2%		5.2%	†1.8%	†1.9%
FUEL AND GAS OIL									
1929	269,620,000	‡258,800,000	10,820,000	4.1	260,046,000	9,574,000	‡236,808,000	21,992,000	145,721,000
1928	247,202,000	242,870,000	4,332,000	2.0	242,223,000	4,979,000	215,071,000	27,799,000	132,073,000
Increase ..	22,418,000	15,930,000			17,823,000	4,595,000	21,737,000	†5,807,000	13,648,000
Increase	9.1%	6.5%			7.3%	92.3%	10.1%	†20.9%	10.3%
PETROLEUM WAX (Lbs.)									
1929	397,709,000	316,755,000	80,954,000	25.5	375,928,000	21,781,000	150,447,000	166,308,000	191,298,000
1928	372,396,000	438,558,000	*66,162,000	*15.0	359,391,000	13,005,000	182,491,000	256,067,000	84,476,000
Increase ..	25,313,000	†121,803,000			16,537,000	8,776,000	†32,044,000	†89,759,000	106,822,000
Increase	6.7%	†27.7%			4.6%	67.4%	†17.5%	†35.0%	126%

*Excess demand. †Decrease. Note—Total supply equals domestic production plus imports. Total demand equals domestic demand plus exports. Data on demand for refined products are based on refinery shipments. ‡Data on domestic demand and total demand are estimates derived from government reports and include some heavy California crude oil.

CRUDE OIL RUNS TO STILLS AND TOTAL ALL OILS (Bbls.)

	Total Crude to Stills	Domestic Crude to Stills	Foreign Crude to Stills	Natural Gasoline Blended at Refineries	Gasoline Recovery Crude Oil†	Total Supply All Oils*	Total Demand All Oils*	Stocks All Oils June 30*
1929	566,762,000	520,075,000	46,687,000	24,617,000	43.13%	674,772,000	621,014,000	666,962,000
1928	515,079,000	474,937,000	40,142,000	19,694,000	40.39%	591,154,000	569,083,000	612,268,000
Increase ..	51,683,000	45,138,000	6,545,000	4,923,000	2.74%	83,618,000	51,931,000	54,694,000
Increase	10.0%	9.5%	16.3%	24.4%		14.1%	9.1%	8.9%

*Total all oils includes crude oil, refined products, natural gasoline and benzol. †Includes natural gasoline blended at refineries.

Russia May Need All Its Oil At Home

T. P. Chamroff, Vice President of Grozneft Trust, Says Growth of Domestic Consumption Likely to Tax Production Facilities

By A. E. Mockler
New York Bureau, The Oil and Gas Journal

NEW YORK, Sept. 16.—While the Russian oil industry is undergoing a period of material expansion, the greater part of this development work is required for the production of sufficient oil to take care of home consumption, according to T. P. Chamroff, vice president of the Grozneft Trust, leading Soviet oil concern, in an interview with the New York correspondent of The Oil and Gas Journal. The Grozneft Oil Trust has succeeded in thoroughly modernizing a large part of its production and refining operations in the Caucasus oil fields, and is launching a five-year expansion program designed further to modernize both field operations and refinery construction and operation. Drilling operations are being electrified throughout the Grozny area, and the trust is inaugurating a coring campaign that contemplates testing for oil in promising sections in the Caucasus and the Crimea. The Grozny fields are located in the northern Caucasus.

Among other things, Mr. Chamroff discloses that the Grozneft Trust is working on a new refining process, the Kregging process, and that equipment for the further development of this method of refining has been purchased in the United States. Mr. Chamroff, who is in the United States to purchase oil field and refining supplies, and familiarize himself with conditions in the American oil industry, is now visiting the California fields.

American oil operators during recent months have been showing increasing concern over Russian competition in refined products markets in Great Britain, on the Continent, and in other export markets. Russian gasoline and kerosene rates have cut materially into many markets formerly dominated to a large extent by United States refined products, and fears have been expressed of further inroads on the part of the Soviet Oil Trust. According to Mr. Chamroff, however, home consumption in the Soviet Union is growing so rapidly that Soviet producers expect to find their facilities taxed to take care of the increasing home demand, which should indicate a lessening of Soviet competition in world markets.

Other Reports Borne Out

The statements by Mr. Chamroff in this connection bear out reports from other sources regarding the increasing consumption of petroleum products in Russia through the greater utilization of tractors and other power equipment in agricultural lines, the development of the Soviet aviation industry, and the motorization of the Soviet army and industries. In addition, a comprehensive road building program is being undertaken in Russia, which should point to a marked growth in automobile business in that country, with resultant increases in consumption of gasoline and motor oils.

Discussing the development of the Soviet oil industry, with particular reference to the Grozny region, from prewar days to the present, Mr. Chamroff says that the industry, which was using outworn methods in production and refining up to the close of the World War, has made rapid strides since then.

"The Grozny oil region had not received proper attention prior to the war," Mr. Chamroff said. "Grozny oil, having a paraffin base and containing a considerable quantity of benzine fractions, had an insufficient marketing organization at that time and was consequently chiefly used as fuel for boilers, and was selling at low prices. The technical organization of production was exceedingly backward. Drilling was done exclusively by the cable method with steam motive power. Absolute absence of good roads and transportation rendered drilling work inefficient and expensive. Oil production was backward, and the refining end of the business was little better. Refineries were obsolete, recovering only about 7 per cent of the benzine content. Maximum production of oil in the Grozny region in prewar years was in 1913, when a total of 1,500,000 metric tons (approximately 11,437,500 bbls.) was produced.

Post-War Progress

"After the war, with the formation in the Grozny region of the State Trust 'Grozneft,' composed of the oil fields of Grozny and Voznesensky (80 kilometers west of Grozny), and with the exploration of the fields of Tresky territory and Dagestan and later (in 1925) annexation of the oil fields of the Kuban-Black Sea region, production development and technical reconstruction of the Grozny properties and the others was advanced materially. In the past five years, 1924 to 1928, an investment of 250,000,000 rubles of new capital has been made in the Grozny oil properties.

"The result of this capital investment was that the production of oil in 1928 (1928-1929 fiscal year) reached 4,600,000 metric tons, equivalent to about 35,075,000 bbls., an increase of 300 per cent. Of the total number of 600 wells under exploitation, exclusive of fountains, 96 per cent are working with deep pumps. Thus the bailer method of production, as less efficient and more expensive, has been replaced by a better and cheaper method. Electric motors have been adopted as a basic motive power. Dry gas is being used to an increasing extent in drilling operations in the fields.

"The total depth of holes drilled increased from 30,000 meters in 1923 to 75,000 meters in 1928, with 75 per cent of all operations now working with the rotary system of drilling. Just as in oil production electric power has been introduced so are field operations being modernized by electricity. In 1928, fully 50 per cent of all drilling wells were working with electric motors.

Refining Methods Improved

"In the development of refineries in the Grozny area, the technical reconstruction was applied chiefly to improvement of heating apparatus and rectification and enlargement of capacities, which resulted in an increase in production to 4,400,000 metric tons of refined products, approximately 33,550,000 bbls. Separation of the benzine fraction was considerably increased, reaching 20 per cent recovery on the total amount of crude oil refined. Not considering the Kregging process, which was developed only recently in Grozneft, large constructive enterprises costing millions of rubles, are the Grozny-Tuapse pipe line and the refineries in Tuapse. These projects were finished and turned over for operation in the spring of 1929. They are working at the present time with capacity of 1,000,000 metric tons (equivalent to 7,750,000 bbls.) of pumping and refining of oil per annum.

"The Grozneft Trust has adopted a five-year expansion and enlargement plan which will be consummated in 1933, and which involves technical improvement of the Grozny properties. New capital to the amount of 350,000,000 rubles will be invested during this period. The largest portion of this amount will be applied in the direction of technical improvement of refineries and coring operations in the fields. This coring campaign will cover 19 regions in the northern Caucasus and on the Crimean Peninsula. Old refinery works will be replaced by new ones of modern construction and equipment. We already have placed important orders in the United States for machinery and supplies designed primarily for refining and development of the Kregging process at our works.

"Recently established production of paraffin and lubricating oils in the Grozny region will be enlarged, and further technical development in drilling and refining operations will be carried on. Within the next few years all drilling operations will be electrified, and new methods of production will be applied to both oil and gas recovery. The growth in the production of crude oil will require enlarging the pipe line from Grozny to the refinery center at Tuapse, and this will be undertaken next year.

"During my short stay in the United States thus far I have been impressed with the unusual speed in the development and progress made in the American oil industry, automobile manufacturing, and the construction of highways. These industries at the present time are being developed in the Soviet Union on a large scale, particularly tractorization of agriculture, which should make for steady development in home consumption of petroleum products in our country. Even now the demand for oil products in the Soviet Union barely can be met by the yearly growth in production. As a result of this condition, it is quite possible that the development program which we have laid down for the Grozny fields during the next five years may have to be enlarged."

HELIUM GAS CONTAINER TESTED IN SIMULATED TRAIN WRECK

MILWAUKEE, Wis., Sept. 14.—The A. O. Smith Corp. staged here Tuesday a train wreck as one method of demonstrating its new spherical vessel for the transportation of helium gas. The wreck and other tests were witnessed by an interested group, including representatives of various government bodies and trade associations as well as many technical men and representatives of the press.

Included among those who came to see this proof of the great strength and capacity for rough handling of this new vessel were the members of the tank car committee of the American Railway Association and representatives of the Bureau of Aeronautics, United States Navy, the Corps of Engineers, United States Army, the Bureau of Explosives, the Goodrich-Zeppelin Corp., the Wisconsin State Industrial Commission and many prominent industrial engineers, insurance inspectors and railroad officials in various departments.

The tests to which this sphere was subjected were very severe and exhaustive, much more so than could be required in actual service. This type of spherical container is designed for the transportation of helium gas at a pressure of 2,000 pounds. It is constructed of 1½-inch steel made in two half spheres which are welded together by the Smith welding process. To finally accomplish its destruction required 4,500 pounds of hydrostatic pressure following 80 hours of decidedly rough treatment. For three days previous to the test to which it was subjected in the train wreck, it had been continuously hammered by pneumatic hammers while under a pressure of 1,250 pounds per square inch.

Wreck Conditions Simulated

To simulate conditions which would prevail in the event of an actual train wreck, the sphere under 1,250 pounds air pressure was lashed to a flat car. Before and behind it were still sections each weighing 14,500 pounds. The flat car with its load was then pushed down a specially constructed spur at high speed and shot out into the air. The flat car was completely wrecked while the tank, after its flight through the air and landing on the ground and rolling some hundred feet before coming to a stop, upon examination was found not damaged.

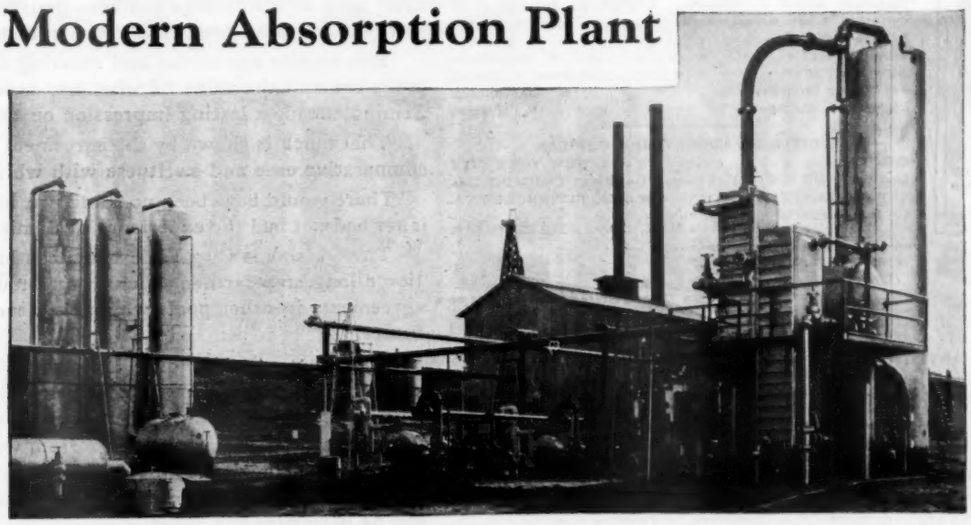
The sphere was then taken back to the plant, where it was filled with water and subjected to various degrees of pressure, under which it was hammered by pneumatic hammers. In one of these tests the pressure was increased to 2,000

(Continued on Page 157)

Spherical tank resting at the bottom of the hill after being shoved off the end of the railroad spur. The end of the rails show plainly in the photo and the top of the flat car can be seen standing almost on end in the back ground. The line of the welding shows running across the upper part of the sphere. The black patches on the lower part of the sphere are dirt marks, not dents in the tank which was uninjured by the drop and subsequent rolling along probably 150 feet. The vertical drop was estimated at 40 to 50 feet, allowing for the distance the sphere traveled before striking the ground. The actual distance from the end of the spur to the ground was 25 feet.

Another . . .

Modern Absorption Plant



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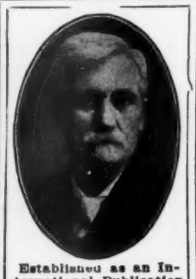

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HEEDING THE DANGER SIGNALS

Some surprise has been expressed at the unanimity and completeness of the shutdown in the Oklahoma City Pool.

Rather, it would have been surprising if there had not been a shutdown in view of what the plain consequences of continued operation would have been.

Every oil man who had given any thought to the matter knew that if overproduction of crude continued upward at the end of the main gasoline-consuming season there could be but one result—a cut in crude prices.

So the operators in the Oklahoma City Field, profiting by the experiences of West Texas and Seminole curtailment, took the simple and obvious course.

The fact that they did so, so quickly and unanimously, is of greater significance to the industry than the actual shutting in of 70,000 bbls. for 30 days. It shows, beyond doubt, that oil men have learned the lesson of conservation thoroughly and no longer waste time in controversy over it.

The example set by these operators in the Oklahoma City Field should be a big factor in promoting the conservation movement in California whose overproduction is the chief menace to the industry.

Closer home it should set the operators in other fields, like East Earlsboro, where 27 wells on one section are producing over 50,000 barrels a day of unneeded oil, to studying what they should do to remedy the situation in their district.

First, it should be noted, there were no half way measures or dubious compromises adopted in the Oklahoma City Field.

The area was producing over 66,000 barrels a day with the potential peak estimated at between 300,000 and 500,000 barrels a day.

No time was lost pointing to California as a greater menace or in suggesting they would shut down if somebody else did.

There was just one thing for them to do and they did it, without quibbling or equivocation.

The second day the pool production was down to 10,785 barrels and even this was due to one well which could not be closed in immediately.

Monday not a barrel of oil was produced in this field where on the previous Friday the production had risen to 66,137 barrels.

And this is to continue for 30 days, with the provision that wells started between now and January 1, 1930, though not completed until long after the 30-day period is ended, will likewise be obliged to shut down for 30 days after cementing the final string of casing.

It is the most complete, promptest and most sincere attempt to deal with overproduction yet recorded.

It shows how far the industry has traveled since the time, only a few years ago, when any suggestion of co-operation for conservation was met with jeers and the assertion that oil producers could never be got to act together with a flush field in sight.

It took two years to get a semblance of agreement at Seminole after most of the damage had been done and the agreements reached were subjected to periodical revision and constant controversy.

But despite opposition and sneering skepticism which persisted until the end the value of what was accomplished or attempted at Seminole made a lasting impression on the mind of the industry.

That much is shown by the agreement at Oklahoma City and the comparative ease and swiftness with which it was reached.

There would have been no shutdown in the Oklahoma City Field if we had not had the experience of Seminole.

The Oklahoma City Field operators have carried the demonstration a long step farther which in turn must make easier subsequent agreements in other pools which are developing or may develop in future.

The same understanding and spirit in California would have solved the problems there. Instead there have been continual delays with effective action always just a week or two ahead.

The new gas conservation law from which so much has been expected became nominally effective September 1, but its enforcement has been further postponed until a test case instituted by the State can be determined in court.

There is a diversity of opinion about the probable outcome with the fear that even if the injunction compelling obedience to the new law is sustained by the courts some of those opposing the law may appeal and file bonds to enable them to continue operations pending the final decision.

That, of course, would be a nullification of the whole conservation law which the courts may not permit but how much better it would be if the operators in California had been brought to see the facts about overproduction as clearly as those in the Oklahoma City Field.

The disastrous effects of overproduction are general, but the remedy must be applied locally wherever overproduction exists. That was the view taken by the Oklahoma City Field operators, by the operators in West Texas and by the leading operators in California.

It has been well said that overproduction operates to the disadvantage of producers and consumers alike.

It compels investment in storing a product for which there is no demand, an investment that loses its value when the emergency passes. It adds an unnecessary cost to the consumer.

It tends to force the market below the cost of production and is immediately reflected in the returns from refined products all along the line, which in turn reacts against the crude structure.

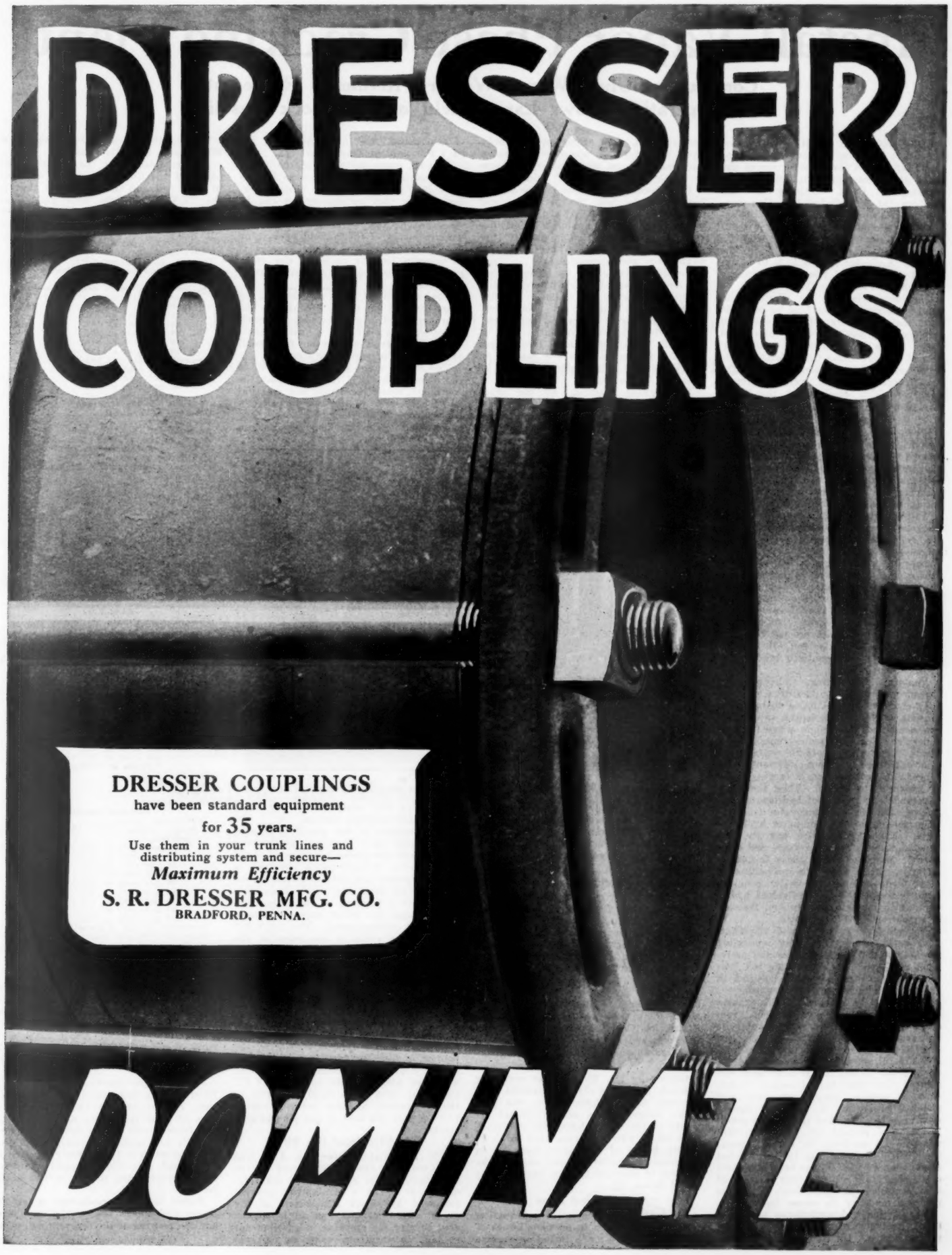
All this has been demonstrated by bitter experience so often that every man in the oil business knows it. Yet there are still some who try to ignore the facts, thinking like the latest man who tries to beat a train over the grade crossing that they alone can get away with it.

That used to be the habitual attitude of the industry. It was only after a long series of crashes that oil men began to pay some heed to the danger signals.

The old idea was that the overproduction would be only temporary and that these ups and downs were a part of the business. But things have changed.

Continually increasing stocks, despite increasing consumption, and the existence of known reserves sufficient for years have limited fluctuations to one direction.

The big job of the industry for some years to come will be guarding against further overproduction on an already overburdened market.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DOMINATE

Install Vapor Phase Cracking Plant

Construction Under Way at Western Refinery. Representative Operation Shows Large Yield of Antiknock Gasoline

LOS ANGELES, Calif., Sept. 16.—Interest is being manifested among West Coast refiners in the construction of the vapor phase cracking installation at the Wilmington, Calif., refinery of the Western Oil & Refining Co. Construction is well under way at the Wilmington refinery and the unit, which involves an expenditure of approximately $3,000,000, will be in operation within a few months. A similar type unit is to be installed at the Wood River, Ill., refinery of the Shell Petroleum Corp.

The installations at the Western and Shell refineries are the first to be made at a major refinery. The process was developed by the Petroleum Conversion Corp., which is operating a small commercial unit at Texas City, Tex. In this article some of the chemical phases of the process are explained, including representative yields obtained at the Texas City plant.

Hydrocarbons of Petroleum

When any petroleum fraction is analyzed into its ultimate components it is found to consist chiefly of hydrogen and carbon with small but varying proportions of sulphur and nitrogen. By applying the usual treating methods to any petroleum fraction, the percentage of sulphur and nitrogen may be greatly decreased, but the percentage of hydrogen and carbon increases as the others decrease.

Substances consisting exclusively of hydrogen and carbon are called hydrocarbons. Petroleum consists almost entirely, therefore, of hydrocarbon compounds. One of the principal aims in refining and treating crude petroleum is to obtain a mixture of pure hydrocarbons. Gasoline, kerosene, gas oil, lubs and other petroleum products are essentially mixtures of hydrocarbons.

Analytically speaking, a hydrocarbon consists exclusively of hydrogen and carbon; chemically speaking, a hydrocarbon consists of atoms of hydrogen and of carbon combined in various ways to form molecules. Some molecules contain more atoms than others; others contain the same number of atoms differently arranged; still others contain varying ratios of hydrogen to carbon. Thus there are thousands of varieties of hydrocarbons.

Even the closest commercial fractions of petroleum contain dozens of hydrocarbons. Each hydrocarbon has its own density, its own vapor pressure and other specific properties, but these properties differ so little from the properties of other hydrocarbons of similar composition that separation of individual hydrocarbons in any given petroleum fraction is an extremely difficult task.

Nevertheless, chemists and physicists have made some progress in separating the hydrocarbons of petroleum and petroleum products. They have learned that these hydrocarbons may be classified in groups according to their properties.

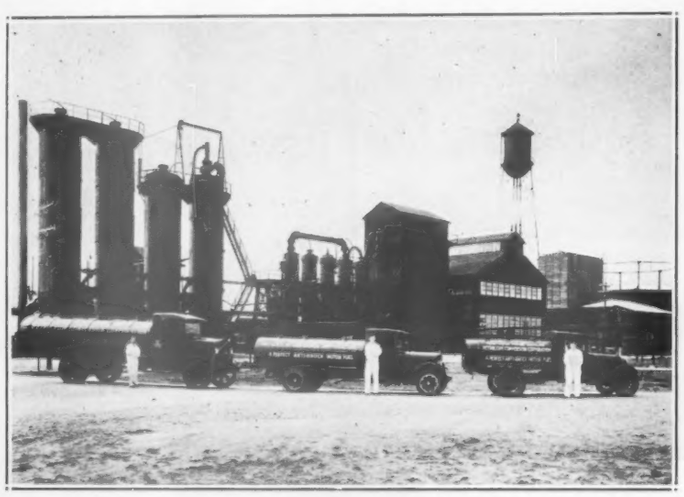
The principal groups of hydrocarbons as determined by their chemical properties are the paraffin, olefin, naphthene and aromatic hydrocarbons. Gasoline, as a petroleum product, is a mixture of paraffin, olefin, naphthene and aromatic hydrocarbons. While it has long been recognized that these four groups of hydrocarbons possess varying chemical and physical properties, it has been discovered only recently that they differ greatly in one respect of vital interest; namely, the tendency to cause "knocking" when used as fuel in an internal combustion engine. It has been definitely established that of the four groups of hydrocarbons the paraffins have the greatest tendency to cause knocking.

The olefins and naphthenes possess a lesser tendency to cause knocking than the paraffins. In contrast with other hydrocarbons, the aromatics not only have no tendency whatever to cause knocking but, on the contrary, possess extremely high "antiknock' values.

This discovery has been of the utmost importance to both the petroleum and automotive industries. As a general rule, straightrun gasoline produced by distillation of crude oil is rich in paraffin hydrocarbons but relatively poor in olefins, naphthenes and aromatics.

Gasoline produced by liquid-phase cracking is generally rich in olefins and naphthenes, and to this extent is superior to straightrun gasoline in "antiknock" values. However, the real "antiknock" hydrocarbons are the aromatics, and it is well recognized that liquid-phase cracking processes produce a gasoline in which there is no appreciable amount of aromatic hydrocarbons.

Vapor-phase cracking, on the other hand, produces a gasoline with a practically 100 per cent aromatic hydrocarbon content, and, if carried out under ideal conditions, gives forth a product so high in aromatic hydrocarbon content that the resultant "antiknock" values are higher than those of pure benzene, which is itself an aromatic hydrocarbon.



Vapor phase cracking unit of Petroleum Conversion Corp., at Texas City, Tex.

Western Plant

Richard Florian, president of the Western Oil & Refining Co., with headquarters at Los Angeles, Calif., considers that the vapor-phase method has long been recognized by standard engineering authorities as the ideal method of heat exchange and consequently the ideal method for the refining and cracking of petroleum. He believes that this ideal has now been realized in the "True Vapor-Phase Process" of the Petroleum Conversion Corp. of America, a description of which was published in The Oil and Gas Journal of July 12, 1928 (page 146).

Guided by Mr. Florian, but operating through a subsidiary corporation, the Western Oil & Refining Co. has now under construction a new 10,000-bbl. refinery of the "True Vapor-Phase Type." This plant, which is being built by C. F. Braun & Co. of Alhambra, Calif., is in all respects similar to one also in the process of erection by the Shell Co. at Wood River, Ill.

Two Typical Runs

To furnish more detailed information than has been given in previous issues of this magazine, we are including reports of two runs, "A-9" and "A-10," of the "T.V.P." plant at Texas City, Tex.

In both cases the yield of the U. S. Navy specification gasoline is so far beyond that obtained by any other cracking process that no comparison can be made. In addition to yields that will seem unbelievable to those who are acquainted only with the older cracking processes, the quality of the product is so superior to that made by any other process that comparison is again out of the question.

The amount of fuel oil obtained in these runs is so small because of the enormous yield of gasoline that the quality of the fuel oil is not of prime importance, but nevertheless even this small quantity was of satisfactory quality.

The recycle material is that portion of the charge which, if the run should be continued, would constitute raw material and would serve to increase the already tremendously high yield of gasoline. The gas production is extremely low, only a fraction of that produced by any other vapor-phase cracking process.

The quantity of gas produced is efficiently used as a fuel for the cracking process and for power production within the refinery. Larger yields obtained in other processes are very disadvantageous as they cut down the yield of gasoline and create a problem of the disposition of the excess gas which cannot generally be solved economically. The "T.V.P." process thus yields a maximum of the desirable product gasoline, a minimum of the fuel oil by-product and has minimum undesirable gas production.

In run A-9 the raw material was West Texas gas oil purchased in the open market. Its aniline cloud point indicates that it is gas oil obtained from some previous cracking operation.

Gas oil of this type is considered the poorest quality for further cracking and its use is avoided by every cracking plant whenever possible. But in the "T.V.P." process it gave yields vastly superior to those obtained by any other cracking process with the best of gas oil charging stocks.

Mid-Continent Gas Oil

The raw material for run A-10 was Mid-Continent gas oil purchased in the open market. Its aniline cloud point indicates it to be a straightrun gas oil produced by direct distillation of the crude. Mid-Continent gas oil is considered to give, by cracking, a gasoline not so high in antiknock value as that obtained by the cracking, for example, of West Texas and other gas oils.

An examination of the aniline cloud points of the finished gasolines obtained in runs A-9 and A-10 indicates that in the "T.V.P." process both yield high antiknock value gasolines having a toluene equivalent of at least 50 per cent.

RUN A-9

Charging stock: West Texas gas oil.
Gravity: 32.4 degrees A.P.I.
Aniline cloud point: 60.2 degrees Centigrade.
Distillation record of charging stock:
Initial boiling point: 282 degrees Fahrenheit.
10 per cent at 410.
20 per cent at 450.
30 per cent at 480.
40 per cent at 510.
50 per cent at 536.
60 per cent at 562.
70 per cent at 590.
80 per cent at 622.
90 per cent at 682.
94 per cent at 702 (cracking).

Yields of Products

Gasoline	84.7%
Recycle oil	3.0
Fuel oil	3.5
Gas (and loss)	8.8

Finished Gasoline

Distillation record:
Initial boiling point: 130 degrees Fahrenheit.
10 per cent at 196.
20 per cent at 230.
30 per cent at 258.
40 per cent at 288.
50 per cent at 310.
60 per cent at 336.
70 per cent at 356.
80 per cent at 376.
90 per cent at 398.
Endpoint at 430 degrees Fahrenheit.
Recovery: 97.5 per cent.
Aniline cloud point: 20.5 degrees Centigrade.

RUN A-10

Charging stock: Mid-Continent gas oil.
Gravity: 35.3 degrees A.P.I.
Aniline cloud point: 79 degrees Centigrade.
Distillation record of charging stock:
Initial boiling point: 416 degrees Fahrenheit.
10 per cent at 498.
20 per cent at 516.
30 per cent at 530.
40 per cent at 544.
50 per cent at 554.
60 per cent at 568.
70 per cent at 584.
80 per cent at 608.
90 per cent at 652.
97 per cent at 698 (cracking).

Yields of Products

Gasoline	79.2%
Recycle oil	4.3
Fuel oil	8.2
Gas (and loss)	8.3

Finished Gasoline

Distillation record:
Initial boiling point: 126 degrees Fahrenheit.
10 per cent at 187.
20 per cent at 218.
30 per cent at 246.
40 per cent at 274.
50 per cent at 308.
60 per cent at 334.
70 per cent at 356.
80 per cent at 378.
90 per cent at 406.
Endpoint at 436 degrees Fahrenheit.
Recovery: 97 per cent.
Aniline cloud point: 19.1 degrees Centigrade.

Construction to Date

Soil tests for the Western's vapor-phase unit were made June 3. Work sheds and fields offices were immediately constructed. On June 16 ground was broken with a large steam shovel. About 5,000 cubic yards of soil were removed preparatory to building the heavy foundations for the stoves.

Railroad spur tracks from the Pacific Electric were then laid to bring in sand, rock, cement, lumber and thousands of tons of steel machinery and equipment. An 8-foot wire fence was constructed entirely surrounding the property. Piling was started July 1 and was completed in two weeks, over 600 Raymond reinforced cement piles being driven in two shifts per day.

Forms for the foundations under the stoves and stacks are nearly completed, and the pouring of the concrete will begin

(Continued on Page 157)

From an article by C. O. Willson
in the Oil and Gas Journal, July 25, 1929

"Refiners sell this Ethyl Gasoline in tank car lots 3 cents above the prevailing market for U. S. Motor Gasoline. This 3 cents is representative of the additional expense involved in the blending operation. Where the refiner has a cracked gasoline which is naturally high in anti-knock value, smaller quantities of tetraethyl lead, the chemical used in the manufacture of Ethyl Gasoline, is required. These refiners not only increase their sales volume but also secure a wider margin of profit."

Universal Oil Products Co
Chicago Illinois

Dubbs Cracking Process
Owner and Licensor

A.P.I. WEEKLY REFINERY STATISTICS

The weekly report made to the American Petroleum Institute on refinery statistics—crude runs to stills, gasoline stocks and gas and fuel oil stocks—for the week ending September 14 follows:

	(1)	(2)	(3)	(4)
East Coast	100.0	3,469,100	3,977,000	8,865,000
Appalachian	89.1	618,200	807,000	798,000
Indiana, Illinois, Kentucky	98.7	2,035,800	4,389,000	3,677,000
Oklahoma, Kansas, Missouri	79.3	1,909,200	2,230,000	4,347,000
Texas	89.8	3,911,700	4,221,000	12,820,000
Louisiana and Arkansas	96.9	1,245,800	1,856,000	5,454,000
Rocky Mountain	93.4	499,700	1,702,000	955,000
California	98.7	4,786,700	12,532,000	107,525,000
Total United States	93.9	18,476,200	31,714,000	144,471,000
Texas Gulf Coast	100.0	3,018,200	3,602,000	9,593,000
Louisiana Gulf Coast	100.0	846,300	1,600,000	4,531,000

(1) Per cent refinery capacity represented. (2) Crude runs to stills. (3) Gasoline stocks. (4) Gas and fuel oil stocks.

Late News from the Field

OKLAHOMA

On Monday afternoon the Indian Territory Illuminating Oil Co.'s No. 1 Trosper and others, C NE SW, Section 13-11-3w, Oklahoma County, was bailed down and blew in making 240 bbls. the first hour and 3,352 bbls. in 13½ hours, together with about 15,000,000 feet of gas. This test was the first one started after the discovery well was completed. It was, however, shut in as a gas well at a total depth of 6,172 feet, where it gauged 102,000,000 feet of gas and 200 bbls. of oil in the Tonkawa sand series, which has been mudded off and the test drilled to the Silicious lime at a total depth of 6,564 feet.

The most important well completed in the Seminole area over the week end was in Earlsboro Pool, Burke-Greis Oil Co.'s No. 1 Jones, NW cor. SW SW, Section 17-9-6, Seminole County. It flowed 1,155 bbls. in 22 hours from the Wilcox sand at 4,250-70 feet. This well is expected to be a large producer after it has been given a shot. It was later shot with 20 quarts and made 2,170 bbls. and still cleaning out on Tuesday morning's gauge.

Transcontinental Oil Co.'s No. 2 Bolan, NE cor. SW SW, Section 19-5-5, Pontotoc County, is estimated to be making 200 bbls. an hour from the Viola lime at 2,282-89 feet. The well is flowing in the slush pit and no gauge has been made until stock tanks have been erected. Several new locations have been made surrounding the well. It is in the Beebe district.

C. J. Wrightsman's No. 1 Green, NW cor. NE NE, Section 19-9-6, in the southeast extension to the Earlsboro Pool, is the largest producer in the pool. It made 8,345 bbls. on the gauge Sunday morning, 8,380 bbls. on Monday morning, and 8,265 bbls. on Tuesday morning.

The gauge of the 28 producing wells in the new extension to Earlsboro Pool on Tuesday at 7 a. m., was 57,923 bbls.

Company—Farm	Wells	Bbls.
Amerada, Sullivan	1	2,413
Barnsdall, Noble	2	1,194
Burke Greis, Green	1	2,179
Gypsy, Noble	2	1,483
Gypsy, Payne	5	7,937
Magnolia, A. Anderson	7	11,633
Magnolia, D. W. Anderson	2	4,049
Minnehoma, Noe	1	6,428
Prairie, Calkins	2	6,528
Prairie, Raitman	3	4,043
Prairie, Wisener	1	1,762
Wrightsman, Green	1	8,265
Total	28	57,912

In the new pool on the Oklahoma, Kansas, state line the Gypsy Oil Co.'s No. 1 Enderude, SE NW SW Section 16-33-3w, Sumner County, Kansas, made 1,160 bbls. on Thursday morning's gauge. The discovery well, owned by the same company, is not producing. The Amerada Petroleum Corp.'s No. 1 Clark, NE cor. NE NW, Section 17-29-4w, Grant County, Oklahoma, swabbed 725 bbls. on Tuesday gauge.

Mid-Kansas Oil & Gas Co. and Ramsey Petroleum Co.'s No. 1 Trosper, NE cor. NW Section 19-12-1w, Seminole County, made 387 bbls. on Tuesday morning gauge. This wildcat test is 11 miles east of the Capital City.

The Signal Oil Co.'s No. 4 Bond, SE cor SW NE Section 13-6-7, in the Sasakwa Pool, made 132 bbls. the first hour from the Wilcox sand at 4,151-52 feet. It is the largest producer completed on the west side of the pool.

KANSAS

Skelly Oil Co. has water in Simpson in its test northeast of the Greenwich Townsite Pool. The test is in the NE cor. NW, Section 11-26-2, Sedgwick County. It found water in the Simpson at 3,205 feet.

Simmons & Rhodes' No. 1 Patterson, SW cor., Section 22-23-11, in the south end of the Seely Pool, Greenwood County, made 350 bbls. in 12 hours after a shot in the Bartlesville sand, at 1,880-1,950 feet.

CALIFORNIA

LOS ANGELES, Calif., Sept. 17.—Pacific Western Oil Co.'s No. 1 on tideland drilling permit No. 92 at Elwood came in under natural flow doing 3,500 bbls. daily from 3,578 feet. This is the first producing well finished on any of the several tideland drilling permits issued for work out in the open ocean fronting on the Barnsdall and Rio Grande's Bell Luton lease on which the discovery well was drilled.

GULF COAST

HOUSTON, Tex., Sept. 17.—Two more good wells have been completed at Refugio. Sun Oil Co.'s No. 1 Johnson is flowing 600 bbls. daily pipe line oil through a quarter-inch choke from sand at 3,678-3,702 feet, and Saxet Oil Co.'s No. 1 City is making 480 bbls. pipe line oil from sand 3,651-61 feet.

At Barbers Hill, Republic Production Co.'s No. 2 Kirby was completed flowing initially at the rate of 800 bbls. of oil daily through a half-inch choke from sand at 5,351 feet, 600 bbls. daily at 5,459 feet.

NORTH LOUISIANA

SHREVEPORT, La., Sept. 16.—R. L. Gay's third well in the Zwolle district of Sabine Parish, No. 4 Bowman Hicks, Section 14-7-14, 700 feet west of his first producer on the same lease, is standing 900 feet in oil, total depth 2,300 feet, and is being standardized for a chalk

(Continued on Page 170)

FIRE THREATENS OIL FIELD

Thirty derricks scattered through the mountains back of the Ventura oil field in California had been destroyed Tuesday night by a forest and brush fire which was then within three miles of the field and threatening the vast forest of derricks there. Forest rangers and others of the hundrdeds of fire fighters endeavoring to check the flames, felt the sparse growth intervening might prevent the fire from reaching the field.

High Spots in Field News

SOUTHWEST TEXAS

Maverick County wildcats important.

NEW MEXICO

Hobbs area likely to run ahead of Jal district, extended both northwest and southeast.

NORTH LOUISIANA

Well in Zwolle district standing 900 feet of oil in hole.

Dixie district gets biggest producer, Gulf company's No. 1 Oden making 2,940 bbls.

EAST CENTRAL TEXAS

Pure Oil Co. well on Grand Saline Dome, on the Van Zandt-Smith County line, tests two joints of mud with showing of oil and very little gas at 2,603-25 feet.

NORTH TEXAS AND PANHANDLE

Good well on Timmis ranch, Cooke County.

Bryson Pool, Jack County, extension to west.

Herron City Pool extended and another pool discovery reported in Young County.

KANSAS

Seely Pool well, Greenwood County, made 350 bbls. in 12 hours.

Central and Western Counties look promising and wildcatting is in progress in 47 Kansas Counties.

WEST TEXAS

Showing in Brewster County.

Pecos County Valley Pool has another small well.

Llano Pool, Winkler County, extended 2 miles southeast.

Rowan & Tong and Taylor-Link Pools most interesting areas in Permian Basin.

GULF COAST

Refugio Field extended 2,500 feet.

New dome likely at Bayou Blue, Iberville Parish.

Barbers Hill well flowing 600 bbls. through half-inch choke.

Two more good wells completed at Refugio, one 600 bbls. and one 480 bbls., through quarter-inch choke.

CALIFORNIA

Completion of 17 wells at Santa Fe Springs halts decline.

Hathaway zone or third Clarke zone has tremendous possibilities.

Injunction hearing on gas conservation law test to be heard Friday.

Pacific Western Co. well, Elwood, does 3,500 bbls. naturally. First producer on tideland drilling permits in open ocean.

OKLAHOMA

In new pool on Oklahoma-Kansas line Gypsy company well made 1,160 bbls.

Gauge of 28 wells in new extension to Earlsboro Tuesday morning was 57,923 bbls.

Oklahoma City Field shut in for 30 days by order of Corporation Commission.

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Indian Territory Illuminating Oil Co.'s No. 1 Trosper, Oklahoma County, blew in making 240 bbls. the first hour and 3,352 bbls. first 13½ hours, with 15,000,000 feet of gas.

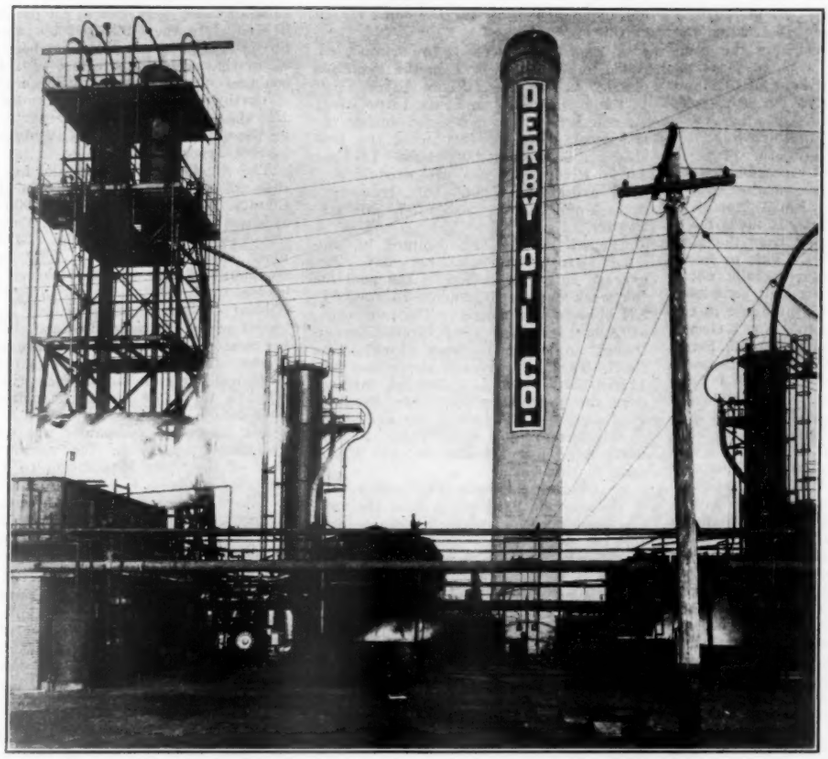
KETTLEMAN WORK HALTED

LOS ANGELES, Sept. 16.—Failing to receive the extension requested from the Department of the Interior on its Kennedy permit, Milham Exploration Co., subsidiary of Mexican Seaboard Oil Co., has suspended operations on Kennedy No. 1 and Elliott No. 2 wells, the latter being an offset to the producer in Kettleman Hills field. Cement plugs were run in both wells, which are in the oil sand and ready for oil string. Milham has no permission to bring in these wells and work has been halted, although the company has not yet signed the field conservation agreement. Officials would not say when the work would be resumed.

For their

DUBBS CRACKING PROCESS

After a year's experience with a TRANSIT HOT OIL PUMP, DERBY has installed a second TRANSIT HOT OIL PUMP on a DUBBS STILL. This second pump replaces one of another make. Nuff Ced.



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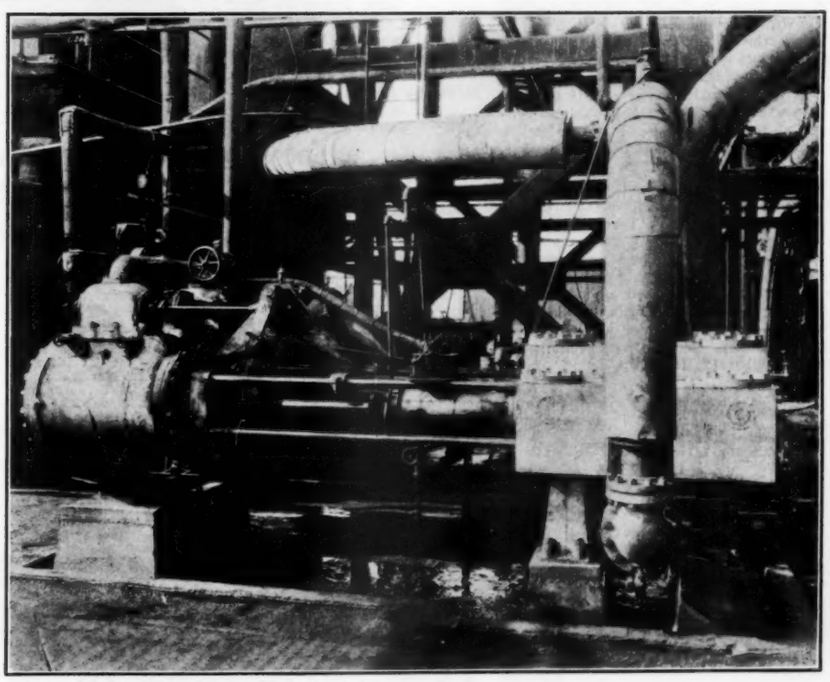

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PUMPS

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PITTSBURGH
TULSA
LOS ANGELES

Oklahoma City Field Shut In Tightly

Order of Corporation Commission Was Being Obeyed 100 Per Cent on Monday. Big New Wells

W. A. Spinney
Staff Correspondent, Oklahoma Fields

The Oklahoma City Field, with a potential production of between 75,000 and 80,000 bbls. a day, was not producing a barrel of oil on Monday. The Corporation Commission ordered a 30-day shut in to start September 12, the details of which order will be found elsewhere in this edition, and by Monday the order was given full effect. It cut off an actual production of about 72,000 bbls., but an even larger potential, and brought the production of the State as on Monday down to about 697,000 bbls.

The important well in the Oklahoma City district in the last week was the Mid-Kansas Oil & Gas Co. and Ramsey Petroleum Co.'s No. 1 Trosper, NE cor. NW Section 19-12-1w, Oklahoma County, which blew in Thursday making a flow every hour and a half of 50 bbls. and made 660 bbls. the first 24 hours, from what some geologists call the Prue sand at 6,160-65 feet. The pay was found about 100 feet below the Oswego lime after the well had been drilled to a total depth of 6,904 feet, where a fishing job prevented deeper drilling. This wildcat is 11 miles east of the capital city and it indicates the probability of it being an edge well in a new pool and that bigger production may be expected to the east. The owners advise that they own all the acreage around the well for a mile and a half. In view of the overproduction situation in Oklahoma at this time this field will be developed in an orderly manner, as these two companies own a block of 10,600 acres in this vicinity. The well was plugged back to a total depth of 6,250 feet.

The latest test to be an oil well in the field south of Oklahoma City is Hall & Briscoe and others' No. 1 Childs, on a 2½-acre lease in the SE SE SE Section 14-11-3w, Oklahoma County. It blew in Friday the 13th from a total depth of 6,344 feet and is the fourth well in the field to produce from a sand. It extends the producing area a half mile to the northwest. The first 18 hours' production was 5,710 bbls. It was shut in Saturday morning for the 30-day period.

During the short life of the Oklahoma City Field it has produced approximately 3,435,766 bbls. of oil since December 4, 1928, when the Indian Territory Illuminating Oil Co.'s No. 1 fee was completed as one of the best producers in the State. The following table is the total amount of oil recovered from the time the discovery well was completed to the time the shut-in order was issued by the Oklahoma Corporation Commission on September 12, 1929:

Company—	Bbls.
I. T. I. O.'s No. 1 fee	942,615
Coline's No. 1 Olds	348,409
Sinclair's No. 1 Stamper	339,681
Mid-Kansas' No. 2 Fortson	308,102
I. T. I. O.'s No. 1 Button	245,177
Mid-Kansas' No. 1 Fortson	214,518
Prairie's No. 1 Hiddleston	152,397
Shell's No. 1 Petty	152,123
I. T. I. O.'s No. 1 Trosper Park	143,737
I. T. I. O.'s No. 1 Johnson	120,022
I. T. I. O.'s No. 1 Wenning	87,113
I. T. I. O.'s No. 1 A. Bodine	83,677
I. T. I. O.'s No. 1 Fuzzell	78,901
Sinclair's No. 1 Kinter	66,527
Wirt Franklin's No 2 Lowery	58,768
I. T. I. O.'s No. 1 S. Bodine	49,572
I. T. I. O.'s No. 1 Watters	33,432
Hall & Briscoe's No. 1 Childs	5,710
Shell's No. 2 Petty	4,651
I. T. I. O.'s No. 1 Trosper	654
Total	3,435,766

T. B. Slick's No. 1 Martin, NW cor., Section 13-13-1w, Oklahoma County, is drilling in lime at 5,509 feet. This wildcat is reported to be running high on structure. No showing of oil and gas has been encountered.

Prairie Oil & Gas Co.'s No. 1 Sudik, C NE NE, Section 8-10-2w, Cleveland County, is drilling at 7,170 feet with 6,000 feet of water in the hole.

In the Seminole Field

In the Seminole area this week the only interesting features were the completion of several new wells in the East Earlsboro Pool, in Sections 17, 18 and 19-9-6, Seminole County. In these sections 27 producing wells had an average of 58,000 bbls. last week which is an increase of 8,000 bbls. over the previous week's gauge. The most sensational wells in that area this week are the Minnehoma Oil & Gas Co.'s No. 1 Noe, SW NW NW, Section 17-9-6. It made 8,337 bbls. after a 10-quart shot from the Wilcox sand at 4,215-36 feet. This producer extends the field a quarter mile north and is the most northern well completed in the area. Another big producer in the pool is C. J. Wrightsman's No. 1 Green, NW cor. NE NE, Section 19-9-6, Seminole County. It put 7,605 bbls. into tanks and it was estimated that 1,080 bbls. went into the slush pit. It is producing from the Wilcox sand at 4,195-4,213 feet. This big well extends the producing area a half mile to the south. The sand was drilled into unexpectedly and the company was not prepared to handle a producer of this size. It has been pinched in until additional tankage is erected and a pipe line connection made. Several other wells were completed in the pool in Section 18-9-6, during the week. Gypsy Oil Co. and Devonian Oil Co.'s No. 3 Payne, SW cor. NE SE, Section 18-9-6, had Wilcox sand at 4,259-70 feet, where it made 2,560 bbls. after a 10-quart shot. Prairie Oil & Gas Co.'s No. 1 Wisener, SE cor. NE NW, Section 18-9-6, Seminole County, made 2,170 bbls. from Wilcox sand at 4,265-83 feet. The well was shot twice with a total of 25 quarts. It extends the pool one location north.

East Earlsboro Next

Among oil operators the impressions gained from the Oklahoma City shut-in plan seem to be that the next area that will be prorated will be the southeast extension to the Earlsboro Pool in Sections 17, 18 and 19-9-6. There are 27 drilling wells in the area with prospects of further extensions and larger production. The plan will probably be to pinch the producing wells to 100 bbls. a day for a 30-day period and also restrict the completion of new wells for the same length of time.

East Little River is Important

The other active area in the Seminole district is the East Little River Pool. In the shallow area in South Little River no new wells were completed during the last week. The production of the pool shows a decline of 4,000 bbls. In East Little River 27 wells are producing a daily average of 29,000 bbls. from Sections 4 and 5 in Township 7-7, Seminole County.

The St. Louis Pool declined in production 3,366 bbls. per day. The average daily production of the pool for the week ending September 13 was 64,831 bbls. from 421 wells. The production at Asher remained about stationary although no new wells were added to the field. The daily average production was 11,278 bbls. which is a 395-bbl. increase over the previous week. The Sasakwa Pool decreased 214 bbls. a day and shows a daily average of 6,388 bbls. Several wells have found water in the Wilcox sand in this pool.

Greater Seminole Production

The average daily gauges for the various pools in the greater Seminole area for the week ending September 13 are as follows:

Pool—	Bbls.
Little River	81,028
Carr City	11,478
Maud	11,643
Mission	24,532
Bowlegs	32,788
Earlsboro	92,840
Seminole	31,952
East Seminole	8,139
Searight	12,161
St. Louis	64,831
Asher	11,278
Sasakwa	6,388
Allen	23,763
Total	412,821

In the northwestern part of Oklahoma it is the general opinion that no test has been drilled deep enough to make a complete test. With the entry of the major oil companies into that area within the past year a number of tests are now drilling and they are expected to test the 7,000-foot levels before being abandoned. In view of the deep production found in other parts of the State and also in Texas some of these tests will in all probability be drilled to the 8,000-foot horizons. An intensive leasing campaign has been going on in that area for the last year but it has now quieted down. A large portion of northwestern Oklahoma is under lease and the majority of the acreage is held by the major oil companies in blocks and in checkerboard acreage.

The Sinclair Oil & Gas Co. has more than 82,000 acres under lease in Harper County, and approximately 64,000 acres of leases in Woodward County. That company is also taking another 5,000-acre block in Harper County. The Sinclair company is one of the largest leaseholders in the State. It is drilling several wildcat wells in these counties. A number of major oil companies are still buying scattered acreage in and around the blocks. The policy has been to follow a geological party and secure leases in areas when a favorable looking structure has been found.

Six major oil companies are working geological parties in the northwestern part of the State in addition to a number of core drills.

Oil companies are still buying leases in Lincoln and Payne Counties, and in a short time all the available acreage between the Seminole pools and the Oklahoma City Pool will be under lease.

Viola Showing in Payne County

The Shaffer Oil & Refining Co.'s No. 2 Echo Hawk, NW cor. NE, Section 9-18-5, Payne County, made 5,000,000 feet of gas and 344 bbls. of oil from the Viola lime at 3,520-22 feet. The well produced for one day only and then went to water. The company is underreaming the casing and will drill to the Wilcox sand. It was the first Viola producer in that part of the State and was very unexpected, and will no doubt cause a lot of new drilling in this area. The same company's No. 1 Little Chief, SW cor. NW NE, Section 4-18-5, Payne County, is still holding its production and is making around 900 bbls. a day from the Wilcox sand at 3,482-3,534 feet.

The Gypsy Oil Co. is blocking in Alfalfa County in Township 27-9w, and also in Kay and Noble Counties in Townships 24-4w and 24-5w. This is in the north and south trend from the pools in Garfield, Noble and Kay Counties, and the new State Line Pool which was recently opened by the same company just over the line in Sumner County, Kansas.

New Wilcox Pool in Okmulgee

J. H. Rebolt and others' No. 2 Hawkins, CNL SW NE, Section 6-15-13, Okmulgee County, found the Wilcox sand productive at 2,539-47 feet where it made 8,000,000 feet of gas and was estimated to be spraying 10 bbls. of oil an hour. It will be deepened as soon as storage tanks are erected. This well opens a new Wilcox sand pool. The nearest production in the same horizon is 1 mile south.

Leasing in South and Southwest

The major oil companies are taking leases in the southern part of the State in the area between the Healdton and Hewitt Pools in a southeast and northwest direction. Several acreage transactions have taken place in this area and new wildcat tests are expected to be started in Townships 3s-5w and 3s-5w in Stephens and Jefferson Counties.

Bucy & Stone's block of acreage in Township 12-24w, Roger Mills County, is known as a magnetometer block. Two locations have been made for test wells

(Continued on Page 78)

WILDCAT OPERATIONS IN OKLAHOMA

(Descriptions are East and North unless marked otherwise)

NORTHERN OKLAHOMA

ALFALFA COUNTY

Company, farm and location—	Remarks:
Smith Bros.' No. 1 Forbes, SE cor. NW NW Sec. 12-27-11w	Shut down 1,232 ft.
Washoma Oil Co.'s No. 1 Acre, SW cor. NE Sec. 14-24-11w	Rig.

BECKHAM COUNTY

Kay and others' No. 1 Martin, C E half E half NW Sec. 32-8-24w	Drlg. 1,100 ft.
Producers Exploration Co.'s No. 1 Seidell, SE cor. SW SW Sec. 17-9-22w	Shut down 2,402 ft.
Carson and others' No. 1 Danby, SW cor. SE NE Sec. 20-8-22w	Shut down 1,547 ft.

BLAINE COUNTY

Lowen and others' No. 1 Unknown, NW cor. SW NW Sec. 27-16-11w	Spudded and shut down.
Washoma Oil Co. and others' No. 1 Phillips, C NW SW Sec. 12-19-10w	Drlg. 2,945 ft.

CADDO COUNTY

Abernathy & Brown's No. 1 Horton, SE cor. Sec. 8-6-13w	Shut down 535 ft.
W. J. Hartley's No. 1 Galbreath, SE cor. NW SE Sec. 29-5-12w	Shut down 3,394 ft.

CLEVELAND COUNTY

Harris et al's No. 1 Highbee, SE NW Sec. 20-6-1	Rig on ground.
Daniels & LeWright's No. 1 Vandever, C SW Sec. 15-7-1w	Shut down 3,130 ft.
Phillips Pet. and T. B. Slick's No. 1 Sudick, NE cor. NE Sec. 8-10-2w	Drlg. 7,135 ft.

COAL COUNTY

J. S. Cosden's No. 1 Richardson, C NW NE NE Sec. 6-2-8	Fishing 2,715 ft.
W. E. McGraw's No. 1 King, C SW NE Sec. 11-1-8e	Shut down 1,285 ft.
McGinley & Sigler's No. 1 Willsey, NW cor. SE SE Sec. 7-2-8	Drlg. 3,016 ft.
E. W. Whitney's No. 1 Brown, C SE NE Sec. 10-2-8	Shut down 202 ft.

COMANCHE COUNTY

Green and others' No. 1 Wilson, C NE SW Sec. 14-1-12w	Shut down 4,055 ft.

CUSTER COUNTY

W. E. Witt's No. 1 Wellman, C SE Sec. 1-14-14w	Abandoned.

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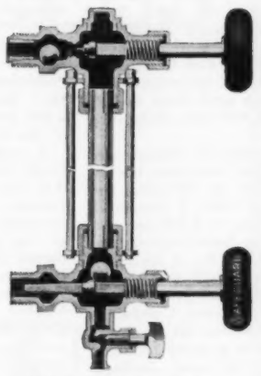

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Wildcatting in 47 Kansas Counties

Central and Western Counties Look Promising to Many Companies and Firms Exploring Their New Leases

By W. A. Spinney
Staff Correspondent, Kansas Fields

Oil development and exploration in Kansas has spread to 47 central and western counties during the last year. Many districts that were farming communities are now sharing in the drilling campaign that has been sweeping the State. This week finds Sedgwick County leading in operations with 68 tests, Butler County next with 36 operations and Greenwood County following with 27 operations. The production is climbing each week and is expected to reach 130,000 bbls. daily in a short time.

Several tests in Sedgwick County are expected to reach pay horizons in the next week. Northeast of Wichita the Shell Petroleum Corp.'s No. 1 Jansen in Section 34-26-2 had chat at 2,930 feet and was landing the casing before drilling in. Burnett Oil & Gas Co.'s No. 1 Davidson in Section 27-26-1 was drilling at 3,020 feet and expecting the chat at any time. South of Wichita The Texas Company's No. 1 Robbins in Section 21-28-1 was drilling at 3,030 feet in a cavey hole and was expected to be the next producer in this pool. The Producers & Refiners Corp.'s No. 2 Kuske, Section 2-28-1, was landing the 6-inch casing at 3,028 feet before drilling in the chat.

More Oil in Ellis County

Another wildcat test in Ellis County has found production in the Gorham horizon. The well is the Barnsdall Oil Co.'s No. 1 Johnson, NE cor. SW Section 9-13-19w. It swabbed 154 bbls. the first six hours from pay at 3,587-95 feet. It offsets the discovery well of the Phillips Petroleum Co., which is now pumping 40 bbls. daily.

Kingman is the only county where leasing has been in progress the last month. The two townships in the northwestern part of the county have been leased by the Shell Petroleum Corp. and the Gypsy Oil Co. The Shell Oil Co. has a block in Township 28-10. Both of these blocks and the area adjoining are being core drilled.

In Sedgwick and Butler Counties

Two more wells were added to the output of the Valley Center Pool. The Bu-Vi-Bar Petroleum Corp. and others and Davis and others have completed new wells. Bu-Vi-Bar Petroleum Corp. and others' No. 7 Wright, in Section 12-26-1w, swabbed 897 bbls. in 24 hours, from the Simpson at 3,361-65 feet. The Davis and others' No. 13 Wilson swabbed 277 bbls. in 13 hours, from the Simpson at 3,374-79 feet. The pool now has 101 producing wells with approximately 29,000 bbls. a day production.

On the east edge of Wichita, Courtney B. Davis' No. 1 Heights, NE cor Section 14-27-1 was drilling at 2,995 feet on Saturday's report. It is nearing the chat which is expected to be found at 3,010. This test has been running very favorably on structure and from information obtained from it and other tests in the area it may be regarded as a promising prospect.

The White Eagle Oil & Refining Co. has made a new location in the SE cor S half SE, Section 23-27-3, Butler County, which is a half mile south of the discovery well recently completed by the Aladdin Petroleum Corp., in Section 24-27-3. The discovery well is producing 140 bbls. daily.

Two tests in the Greenwich townsite, Sedgwick County, are nearing the pay while a dry hole in the same formation is drilling to the deep pay. Deal Oil & Gas Co.'s No. 1 Delong, in Section 15-26-2 is landing casing at 2,916 feet, before drilling in the chat. Hays & Moriarity's No. 3 Hladick, was nearing the deep horizon and is expected to be the next well to reach the deep pay. It was cementing casing at 3,192 feet. Ramsey and others' No. 2 Mason in the townsite, which missed both the chat and the Simpson pays, was drilling deeper at 3,270 feet on the report of September 14.

Dry Hole in Sedgwick

The Prairie Oil & Gas Co.'s No. 1 Hinds, SW cor. SE, Section 2-26-2, Sedgwick County, is a dry hole in the chat formation and is shut down at 2,905 feet. This test was directly north of the Greenwich townsite operations.

A new pool may be opened by the Shell Petroleum Corp.'s No. 1 Jenson, NW cor. SW, Section 34-26-2, Sedgwick County, 2 miles south of the Greenwich townsite pool. This test had the top of the chat at 2,930 feet, and is reported to be running much higher than the surrounding tests.

E. W. Marland and others' No. 1 Mackey, SE cor. NW SW, Section 30-27-2, Sedgwick County, located on the southeast edge of Wichita showed a slight increase in production when it pumped 67 bbls. of oil and 37 bbls. of water.

Another wildcat test for Harper County will be started in the near future. It is M. F. Beeler and others' No. 1 Bear, C NE, Section 21-31-6w. The location is 4 miles northeast of the town of Harper and is in the center of a 9,000-acre block. It will be drilled with standard tools and is to be started by October 1.

In McPherson County near the Ted Washabaugh test, Derby Oil Co.'s No. 1 Stuckey, in Section 9-21-3w, is coring the chat formation at 3,000 feet. It is being drilled with a rotary unit. It is located a half mile south of the Ted Washabaugh No. 1 Voshnell.

Rich Lease in Elbing Pool

The Phillips Petroleum Co.'s Skully lease in the E half, Section 17-23-1, in the Elbing Pool, Butler County, has produced 3,516,785 bbls. of oil in the last 10 years. Only 94 acres of the 320 have been productive which makes a gross recovery per acre of 37,400 bbls. The lease is one of the largest and most productive oil properties in Butler County. Few leases in the Mid-Continent Field have equaled this recovery per acre and gross production. The lease after 10 years of continuous operation is still productive. During the first eight months of this year it produced 110,200 bbls. of oil, which is an average of 455 bbls. per day. In recent years considerable water has been produced with the oil. The lease was purchased from the Skully estate in January, 1920, for the reported consideration of $1,000,000. There were two producing wells on the property at that time. The total production on the lease at one time was 5,000 bbls. a day, all the wells were large producers and holding the flush for a considerable period. Conservatively estimating the returns from this lease at an average of $2 a barrel for the oil over the 10-year period it places the income at more than $7,000,000.

McPherson County

The Shell Petroleum Corp. is making preparations to complete the second well in the Reitz Pool in McPherson County, within the next few days. No. 2 Reitz, Section 1-20-2w, is bottomed at 2,897 feet. The big pipe is being pulled before it is drilled into the chat. In the same area The Texas Company's No. 1 Munn is drilling at 2,675 feet. The Dixie Oil Co.'s No. 1 Fluke is drilling at 1,200 feet. The Shell Petroleum Corp.'s No. 1 Reitz is still making 1,000 bbls. a day. It is the discovery well.

Helium Gas in Cowley

The discovery of another helium gas well south of Dexter leads the operators to believe that the field is spreading. The Trees Oil Co.'s No. 1 Adams, C SW NE Section 12-34-6, Cowley County, a quarter of a mile from the discovery well in the area, is making 4,000,000 feet of helium gas. Owing to the fact that the old helium gas wells in the Dexter Field had exhausted themselves, the helium plant was being dismantled for removal when the Trees Oil Co. made the new discovery. It is believed the plant will be put in condition for operation again.

Two interesting wildcats that are expected to reach the pay horizon in the next week, have had showings of oil and gas in the Bartlesville sand above the chat in the Gueda Springs Pool, where the wells are producing from the chat horizon. These showings may lead to more tests in that area, as the companies interested in the district are led to believe that the Bartlesville sand may be productive on the structures. These tests are running similar to other producers in the district. Prairie Oil & Gas Co.'s No. 1 Fitch, SE cor. NW NW, Section 3-34-2, Cowley County, is a diagonal offset to the same company's No. 3 Olsen, the well completed by the same company a few months ago with an initial production of 2,100 bbls. daily, and still making 400 bbls. a day. The No. 1 Fitch had a good showing of gas in the Bartlesville sand at 3,205 feet, and was drilling ahead at 3,275 feet. The chat formation is expected at 3,450 feet. The other test being drilled by the Tidal Oil Co., is 3,250 feet, and is also nearing the chat formation. It is located in the SW cor. Section 33-34-2, Cowley County, a mile and a half from production. If the test finds commercial production it will, in all probability, result in an active drilling campaign in that area. A light show of oil was found at 3,108-15 feet, but the test was drilling ahead at 3,200 feet.

Roth & Faurot's No. 1 McEwen, Section 7-32-5, Cowley County, 4 miles northeast of Winfield, found a showing of oil in sand at 2,410 feet. It was carrying a hole full of water at the time and casing will be underreamed to the top of the sand and a production test made. The test may open new production on the big structure east of Winfield. It is a semi-wildcat, a mile from the nearest production. The producing sands are found at 1,925 feet, and another at 2,330 feet levels, in the pool.

Butler County

W. G. Sandford made location for No. 1 Brooks, NE cor. NW SW, Section 12-28-5. National Refining Co.'s No. 1 Guinn, SW cor. NW NW, Section 2-25-5, is dry and abandoned at 2,689 feet.

Chase County

Broadner and others made location for No. 1 Stepons, NW cor. NE, Section 32-20-6.

Coffey County

E. C. Johnson staked location for No. 1 Hazelback, SE cor. NE SW, Section 23-21-13.

Cowley County

Lewis Production Co.'s No. 1 Pierce, NE cor. NW SE, Section 30-31-6, has been completed for 60 bbls. in sand 2,907-51 feet. Shawver and others' No. 5 Beard, NE cor. SE NE, Section 17-34-3, has been completed for 5,500,000 feet of gas in sand 3,322-43 feet.

Douglas County

Pauline Oil & Gas Co. moved the rig in for No. 1 Moore, SE cor. NE, Section 27-13-18.

Elk County

Pure Oil Co.'s No. 16 Chaffin, SW cor. NW SE, Section 14-31-10, has been deepened to 2,296 feet and completed for 25 bbls.

Ellis County

The Texas Company has the rig up for No. 1 Shutts, NE cor. SE, Section 5-12-17w.

Greenwood County

M. J. Sullivan made location for No. 1 Brown, SW cor. SE, Section 14-23-11. Empire Oil & Refining Co.'s No. 3 Laird, NE cor. SE SW, Section 21-23-11, is drilling at 880 feet. Tulsa Oil Co. made location for No. 1 Beauchat, NE cor. SE SW, Section 6-24-12. Mid-Continent Petroleum Corp. made location for No.

(Continued on Page 141)

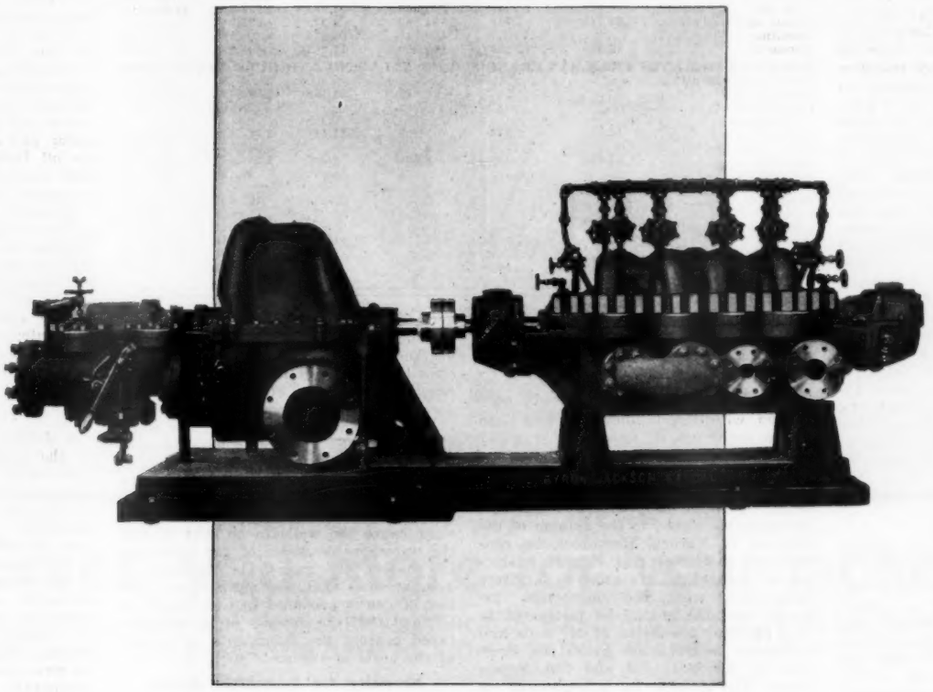
WILDCAT OPERATIONS IN KANSAS

(Descriptions are East unless otherwise marked)

Company, farm and location—	Remarks:
BARBER COUNTY	
Rolland & Skelly Oil Co.'s No. 1 Pickens, C NE NW NE Sec. 27-30-14w	Drlg. 4,734 ft.
Skelly Oil Co.'s No. 1 Temple Ranch, Sec. 13-34-15w	Drlg. 3,595 ft.
Robertson et al's No. 1 Powell, SE cor. SE Sec. 11-32-10w	Drlg. 2,510 ft.
Allison & Fitzwilliams' No. 1 Morrisse, C NW SE SE Sec. 9-30-12w	Drlg. 4,161 ft.
BARTON COUNTY	
Allison & Fitzwilliams' No. 1 Unknown, NE cor. Sec. 19-16-12w	Rig.
Barbara Oil Co.'s No. 3 Carter, SW cor. SE SE Sec. 2-33-13w	Rig.
Slick et al's No. 1 Sweeney, SW NE Sec. 23-17-11w	Rig.
Everett & Wiley's No. 1 Ward, NW cor. SW Sec. 13-20-13w	Shut down 3,948 ft.
BUTLER COUNTY	
Travis et al's No. 1 Harrison, SE cor. Sec. 21-25-3	Drlg. 2,820 ft.
Milmac Oil Co.'s No. 1 Clearwater, SW cor. Sec. 33-25-3	Drlg. 1,940 ft.
Lario Oil & Gas' No. 1 Gordon, NW cor. Sec. 15-26-3	Drlg. 2,915 ft.
Sinclair Oil & Gas' No. 1 Johnson, NE cor. Sec. 16-26-3	Drlg. 900 ft.
Empire O. & R. Co.'s No. 1 Parks, NE NW Sec. 36-29-4	Drlg. 3,310 ft.
Arkansas Fuel Oil Co.'s No. 1 Campbell, SE cor. Sec. 9-26-3	Drlg. 2,700 ft.
White Eagle's No. 1 Bachelder, SW cor. Sec. 17-25-3e	Shut down 2,485 ft; show water.
CLAY COUNTY	
Derby Oil Co.'s No. 1 Meimueller C NW SW Sec. 9-10-3e	Drlg. 1,000 ft.
COWLEY COUNTY	
Landon & Slick's No. 1 Daniels, NE SE Sec. 6-30-5e	Dry and abandoned 2,880 ft.
J. B. Markley's No. 1 Tatum, SE cor. SW Sec. 11-31-6	Shut down 500 ft.
Shawver et al's No. 1 Oldham, NW SE Sec. 23-32-3	Spudding.
DICKINSON COUNTY	
Cress & Hawky's No. 1 Menll, NE cor. Sec. 12-15-3	Rig.
Hiatt & Durham's No. 1 Wendt, NW cor. Sec. 17-16-2	Spudding.
Kruger et al's No. 1 Diche, C NW NE NE Sec. 17-13-4	Rig.
Milmac's No. 1 Biebler, SW NE Sec. 28-16-4e	S. D. 3,001 ft.
Prairie Oil & Gas Co.'s No. 1 Morgan, NW cor. Sec. 26-16-3e	Drlg. 3,100 ft.
DOUGLAS COUNTY	
Jenkins & Scott's No. 1 Haden, SE NW Sec. 10-12-17	Spudding.

(Continued on Page 98)

HOLMES-MANLEY CRACKING PROCESS PUMPS



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California Injunction Hearing Is Set

Test of Gas Conservation Law Anxiously Awaited. Possibility of Opponents Giving Bond and Continuing

By L. P. Stockman
Staff Correspondent, California Fields

LOS ANGELES, Calif., Sept. 14.—The State of California, represented by James S. Bennett, special counsel of the department of natural resources, instituted injunction proceedings a few days ago to restrain Santa Fe Springs' operators from further waste of natural gas. The petition was filed in the Superior Court on September 11 and Judge Elliott Craig issued an order for operators to show cause on September 20 why a temporary restraining order and subsequent permanent injunction should not be issued. As a matter of formality every operator at Santa Fe Springs was cited in the injunction. These included the Associated, General Petroleum, Richfield, Standard, The Texas Company, Union, Shell, Industrial Fuel, Rio Grande, Standard Gasoline Co., Norwalk Co., Ambassador Petroleum, Bandini Petroleum, Bell View Oil Syndicate, Buckeye Union, Commodore Petroleum, Co-Operative Oil Syndicate, Tom Donley Land & Oil Co., Elliott Consolidated, Graham & Loftus, Oscar R. Howard, Jameson Petroleum, C. C. Julian, Raleigh Oil Co., Reid & Berliner, George W. Ring, Second Twin Bell Syndicate, St. Helens Petroleum, Sunset Petroleum, Superior, Twin Bell Syndicate, U. S. Oil & Royalties Co., Universal Consolidated, Whiston & Cox, Whittier Santa Fe Springs Syndicate, George W Getty, Wilshire Oil Co., Wilshire Annex, Mohawk Oil Co., and a number of other individuals.

Hearing on Friday

The hearing to be held next Friday will be conducted by Judge Walter S. Gates and, while none of the major operators is expected to offer any objection as they are in favor of the gas conservation law, it is likely some of the smaller independent producers may attempt to prevent the issuance of the temporary restraining order or injunction. The Associated, General Petroleum, Richfield, Shell, Standard, Union and The Texas Company have already ratified a proposed plan which contemplates repressuring depleted oil zones and the storage of natural gas in suitable underground horizons. Commercial sales of natural gas to public utilities and natural gas used for fuel in the field for development purposes will also be taken care of on an equitable basis. This plan, which will go a long way toward reducing surplus production of natural gas and at the same time permit maximum production of crude oil, is being submitted to all operators for appropriate action. The plan under consideration is purely of a mutual co-operative nature and, while no operator is obligated to become an associate member, he will no doubt find it advantageous to sign on the dotted line unless some other means are available for disposing of surplus natural gas. Injunction proceedings similar to those instituted at Santa Fe Springs will be filed next week for the purpose of enjoining operators in the Long Beach, Seal Beach and Ventura Avenue fields from further wastage of natural gas. These subsequent injunctions will only be a formality if the test case involving Santa Fe Springs is decided in favor of the State, as the issuance of this injunction or restraining order will establish a precedent. The importance of this test case depends upon whether the court will allow belligerent operators to continue wasting natural gas by posting a guarantee bond as this would tend to void gas conservation pending final decision of the Supreme Court on the injunction proceedings.

TANKER SHIPMENTS FROM LOS ANGELES TO ATLANTIC AND GULF COAST PORTS

Commodity—	Total this week	Daily average	Total last week	Daily average	This year to date	Same time last year
Crude oil	.....	.....	.....	.....	997,250	2,646,947
Fuel oil	.....	.....	.....	.....	49,950	111,621
Diesel and gas oil	140,675	20,096	.....	.....	1,351,609	1,543,114
Gasoline	448,824	64,118	683,159	97,594	14,939,318	9,869,691
Naphtha distillate	.....	.....	.....	.....	81,750	259,600
Coastwise—						
Crude oil	669,099	95,586	547,632	78,233	18,718,256	17,441,338
Fuel oil	414,082	59,155	228,460	32,637	13,980,181	11,853,933
Diesel and gas oil	33,753	7,822	28,333	4,078	857,009	779,551
Gasoline	79,568	11,367	163,553	23,365	7,751,925	6,376,572
Kerosene	5,117	731	295	42	67,031	64,061
Naphtha distillate	.....	.....	.....	.....	.....	171,566
Exports—						
Crude oil	125,132	17,876	203,727	29,104	4,213,115	1,585,007
Fuel oil	146,578	20,940	174,560	24,937	12,738,359	16,604,606
Diesel and gas oil	55,741	7,963	34,500	4,929	1,925,006	1,884,418
Gasoline	.....	.....	459,725	65,675	8,394,114	4,948,901
Kerosene	86,090	12,299	105,050	15,007	2,421,831	2,953,433

TANKER SHIPMENTS FROM SAN FRANCISCO TO ATLANTIC AND GULF COAST PORTS

Diesel and gas oil	.....	.....	.....	.....	.....	342,425
Gasoline	.....	.....	78,050	11,150	1,583,425	1,516,359
Lubricants	.....	.....	.....	.....	138,706	277,151
Coastwise—						
Fuel oil	44,610	6,373	147,791	21,113	2,024,814	2,664,468
Diesel and gas oil	.....	.....	.....	.....	342,313	253,272
Gasoline	93,405	13,344	8,730	1,247	3,546,661	3,384,354
Kerosene	.....	.....	.....	.....	96,996	171,585
Exports—						
Crude oil	.....	.....	.....	.....	121,603	85,935
Fuel oil	.....	.....	.....	.....	602,070	1,815,114
Diesel and gas oil	.....	.....	.....	.....	261,565	10,400
Gasoline	14,250	2,026	104,893	14,985	4,064,940	2,526,340
Kerosene	.....	.....	.....	.....	406,730	464,080
Lubricants	.....	.....	.....	.....	25,713	33,535

Definition of Waste

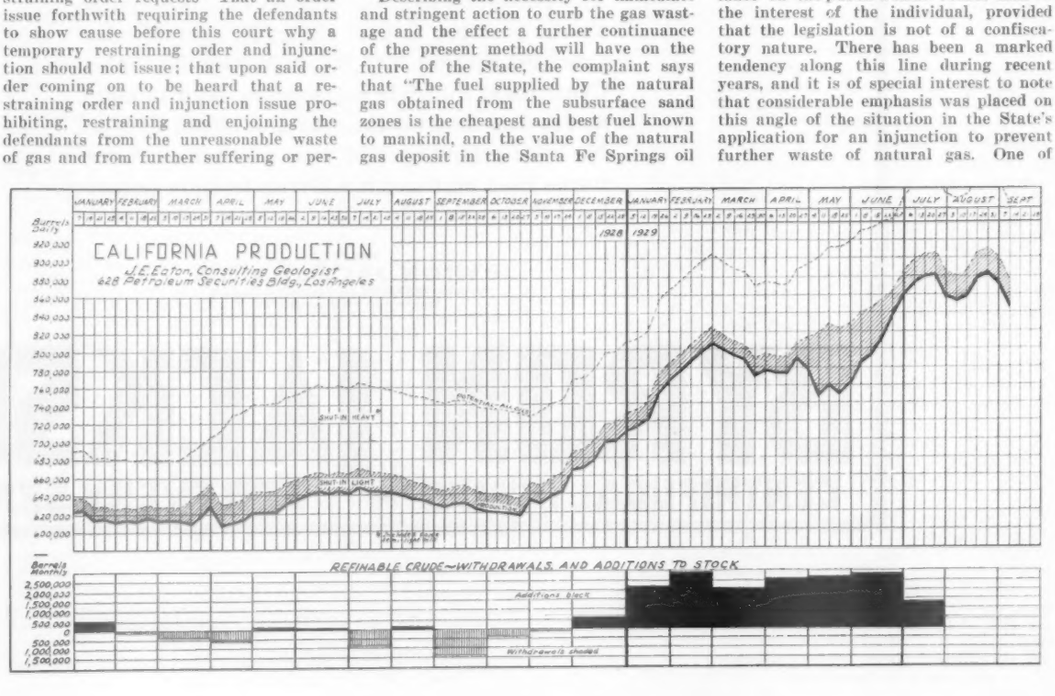
The most significant feature in connection with the injunction proceedings is the definition of unreasonable waste and the provision for carrying out the court's decree. Any production in excess of 2,500 feet of natural gas for each barrel of crude oil produced constitutes unreasonable waste, in the opinion of the Director of Natural Resources, by contributing to the general surplus production of natural gas. In order to facilitate enforcement work, the injunction requests that the sheriff be instructed to take physical possession of all wells and undertake control work under the direction of the State Oil and Gas Supervisor. The petition for a temporary restraining order requests "That an order issue forthwith requiring the defendants to show cause before this court why a temporary restraining order and injunction should not issue; that upon said order coming on to be heard that a restraining order and injunction issue prohibiting, restraining and enjoining the defendants from the unreasonable waste of gas and from further suffering or permitting the natural gas produced from or flowing in or to the wells, or any part of the gas to escape or waste into the air either before or after the removal of gasoline. That the defendants be ordered, directed and commanded forthwith to securely confine the gas in the wells and sands. That the defendants failing or refusing to do so the sheriff be ordered and directed to procure the necessary materials and labor and under the direction of the State Oil and Gas Supervisor cause the wells to be shut in and the unreasonable waste of gas prevented by causing the gas to be confined in a manner so that not more than 2,500 feet of gas is produced to each barrel of oil, and that the expense of so doing be taxed against the defendants as a part of the costs of the suit."

Necessity for Immediate Action

Describing the necessity for immediate and stringent action to curb the gas wastage and the effect a further continuance of the present method will have on the future of the State, the complaint says that "The fuel supplied by the natural gas obtained from the subsurface sand zones is the cheapest and best fuel known to mankind, and the value of the natural gas deposit in the Santa Fe Springs oil field to the State of California and its citizens is many millions of dollars. Since the discovery and bringing under control of the gas deposits in that area large sums of money have come into the State and have been invested in large manufacturing plants, and other large sums of money belonging to the people have been invested in similar manufacturing enterprises causing a great increase in the population of the State, county and city. Many cities in and adjacent to the Santa Fe Springs Field, including the city of Los Angeles, are dependent in a large measure for fuel upon natural gas and for that reason the people have become interested in the protection and continued preservation of the natural gas supply. Millions of dollars invested in manufacturing and the production of electric power and other properties in and near the oil fields are wholly dependent for their continued preservation and for the permanent value of their property upon the natural gas supply. Their location and establishment in the vicinity was due in large measure to the presence of natural gas being available, without which such enterprises cannot operate at a profit, and in the event the supply of natural gas should be exhausted many such enterprises in which thousands of the citizens of the State find employment will be compelled to stop operations."

Diversity of Opinion

A diversity of opinion still exists as to the probable effectiveness of the gas conservation law and one can find just as many operators who are optimistic over the outlook as there are those who hold pessimistic views. The legal fraternity itself is as equally divided in its opinion as the oil industry. I am rather inclined to believe, however, that the courts will ultimately sustain the proposed regulation and have assumed this position in all deductions for the past several months. In determining the status of the gas conservation law, the courts will undoubtedly place considerable importance on the public welfare rather than on the interest of the individual, provided that the legislation is not of a confiscatory nature. There has been a marked tendency along this line during recent years, and it is of special interest to note that considerable emphasis was placed on this angle of the situation in the State's application for an injunction to prevent further waste of natural gas. One of



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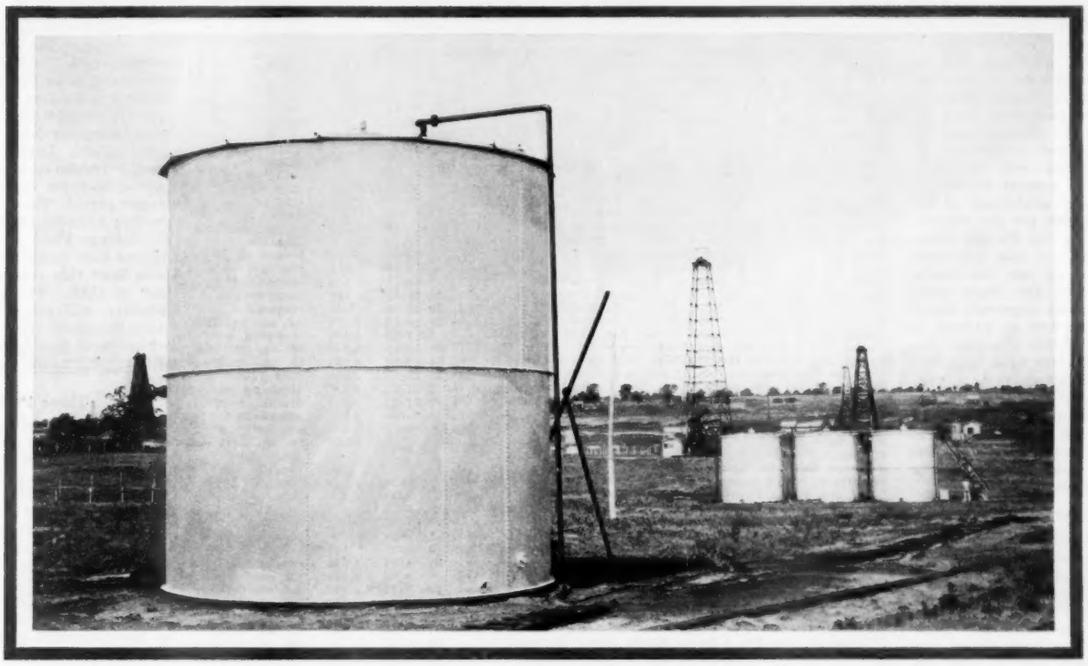

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the most interesting features in connection with the gas conservation law is the probable effect which enforcement will have on the production of crude oil and gasoline. The gas law, which is an amendment to the water infiltration act, is primarily a conservation measure. No attempt is made to regulate the production of crude oil but it is quite obvious that any reduction in the production of natural gas will be sympathetically reflected in a corresponding reduction in the output of crude oil, as there are no fields producing dry gas exclusively in California at present. Estimates vary as to the probable reduction in the production of crude oil resulting from enforcement of the gas conservation law. An arbitrary cut of 200,000 bbls. per day has been generally accepted and, while this seems rather high because it apparently makes no allowance for the normal decline which will be taking place during the period of gas conservation, it must be remembered that deep zone development at Santa Fe Springs and the probability of increased production at Elwood and other fields will probably more than offset the normal decline in settled fields. A daily production of approximately 650,000 bbls. per day was set several months ago by the Pacific Coast Regional Committee of the American Petroleum Institute as the maximum daily production which the State could produce compatible with economic development. State production at present is only a little over 200,000 bbls. per day in excess of the 650,000 bbls. objective set by the Institute but there is a good probability that additional completions will increase the present excess in the not far distant future, in which event the actual reduction in crude oil production resulting from gas conservation will be well in excess of 200,000 bbls. per day.

Effect on Natural Gasoline

In addition to reducing the production of crude oil, the gas conservation law will also exert a very appreciable effect on the production of natural gasoline as plant operators will have a smaller amount of natural gas to treat. Practically no wet gas has been blown into the air during the past year as plant operators also treated the surplus before blowing off the excess. It is obvious that any reduction in the amount of natural gas available for treatment will result in a smaller recovery of natural gasoline. During July a total of 54,938,475,000 feet of natural gas was treated with a net recovery of 73,764,342 gallons of natural gasoline. If the State succeeds in its attempt to eliminate surplus production of natural gas amounting to 500,000,000 feet daily, or approximately 28 per cent of the total amount treated during July, casinghead plant operators will only have available around 40,000,000,000 feet of natural gas monthly or roughly about 1,250,000,000 feet daily. A 25 per cent reduction in natural gas production should be reflected in a similar reduction in the production of natural gasoline so that based on the July recovery of 73,764,342 gallons of natural gasoline operators would only have recovered 55,323,256 gallons if the gas conservation law had been in effect during that period. This represents a reduction of 18,441,086 gallons for the month, or 14,164 bbls. per day. Total gasoline production in California, including cracked and straightrun, approximated 280,203 bbls. per day during July, so that a 25 per cent reduction in natural gasoline production would have cut the total gasoline production in a little over five per cent. On top of this 5 per cent reduction in gasoline production, operators would have had less crude oil to refine if the gas law had been operative, and this would in turn reduce the production of straightrun gasoline, all other things being equal.

Hathaway Zone

The aggressive attitude assumed by State officials with respect to enforcement of the gas conservation law is of special importance in view of the decline shown in State production during the past few weeks. Santa Fe Springs has been the dominating factor in State production for several months and is expected to continue to exert a similar effect for some time to come, due to progressive deep zone development. This field reached a peak of 295,500 bbls. per day on August 25 and will probably never again approach this level unless the gas law fails of accomplishment. The O'Connell zone in this field has been declining for the past few weeks and, while it will continue to yield fairly large wells from time to time, it must of necessity follow the axiomatic law governing future decline. The Buckbee, Nordstrum and O'Connell zones will all continue declining and any temporary up swing must result from development of underlying horizons. The Clarke zone has also shown the inevitable sign of an early decline. The deep Hathaway zone, however, has tremendous possibilities and should become the dominating zone at Santa Fe Springs later this year. Deeper drilling, however, is always slower to affect field production for obvious reasons and consequently does not reflect the abrupt breaks in production curves such as results from the development of shallower zones where the elapsed time from spud to completion is less and numerous wells are completed within a relatively short time. Deep zone development usually results in a rather gentle but consistent increase from day to day over a longer period. There are 241 incompleted drilling projects under way in the Santa Fe Springs Field and under normal conditions this would result in a secondary peak later this year and during the early part of 1930. The gas conservation law, however, will prevent this condition if it is sustained by favorable court action, in which event Santa Fe Springs production will never again reach previous high levels.

Three Peaks in Year

The accompanying graph, showing the daily production of crude oil in California for 1928 and the output during the current year to date, shows a definite upward trend during the entire period in question. Special attention is directed to the three peaks attained during 1929. The first was reached at the end of February when Buckbee and Nordstrum zone development was at its peak. The second and third peaks reached in July and August reflect progressive development of the O'Connell and Clarke zones. The Hathaway horizon has only been scratched as far as the apex of the structure is concerned and this zone would probably push State production well up above 1,000,000 bbls. daily with unrestricted development. Operators are now concentrating their attention on the Clarke, Hathaway and other possible deeper productive horizons at Santa Fe Springs due to the fact that the period of flush production is over as far as the Buckbee, Nordstrum and O'Connell zones are concerned. As has already been mentioned, the Clarke zone is already showing evidence of depletion and many operators will no doubt pass up this sand and make a bid for production in the highly productive Hathaway.

It will also be noted from the accompanying production graph that there has been a substantial decline in State production during the last week in August and the first week in September. Practically all of this drop can be charged up to Santa Fe Springs and is due to a normal decline in producing zones above the Hathaway. Under normal conditions, State production could be expected to continue registering a gradual normal decline during the next several months but it is quite probable that deeper drilling at Santa Fe Springs will arrest this decline in the near future. However, enforcement of the gas conservation law which contemplates an artificial reduction at Santa Fe Springs, Seal Beach, Long Beach, Ventura Avenue and other districts showing surplus production of natural gas, will probably be the governing factor in future production irrespective of the amount of drilling.

Santa Fe Springs

There were 17 wells finished at Santa Fe Springs during the past week and as a consequence of this large completion list the decline in field production was temporarily arrested. A check of development work in this field tends to indicate that the Clarke zone will not prove

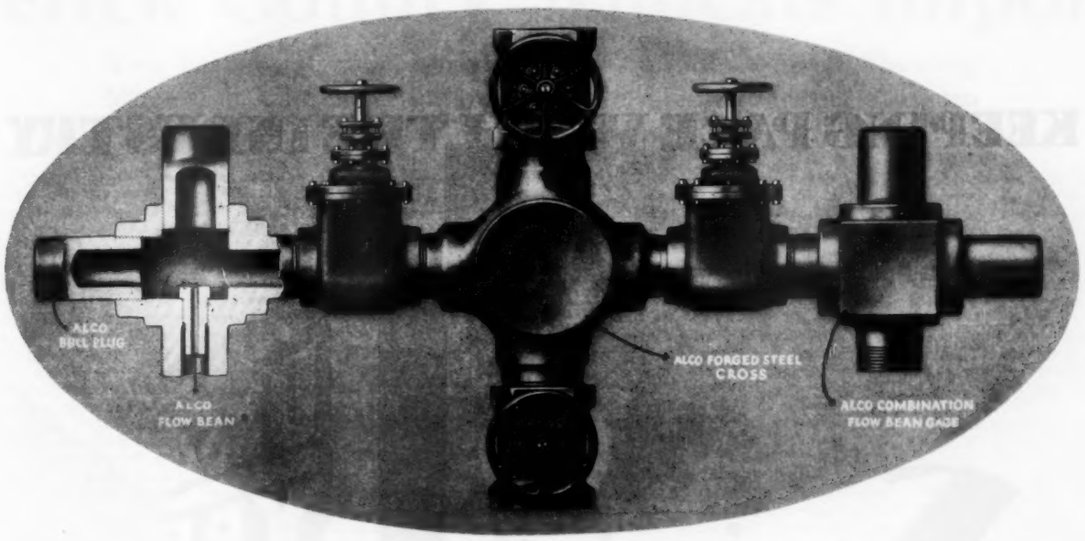
(Continued on Page 146)

IMPORTANT NORTHERN CALIFORNIA WILDCATS

Company, well, location—				
Standard, No. 5-9 Saticoy, Ventura Co.	10- 2-22	7,906	br. sh. drilling
American Oil Co., No. 1 Camarillo, Ventura Co.	33- 2-20	1,210	cleaning out
Bolsa Chica, No. 1-A Temescal, Ventura Co.	4- 4-18	890	cemented
Associated, No. 1 Rincon, Ventura Co.	S.T.R.	Depth	Status
Miley, E. J., No. 2 Red Mountain, Ventura Co.	19- 4-24	Mtl.	building rig
Shell, No. 1 Simi, Ventura Co.	7- 3-23	1,760	hd. sd. drilling
Continental, No. 1 Sulphur Mountain, Ventura Co.	31- 3-17	3,910	coring
Continental, No. 2 Sulphur Mountain, Ventura Co.	21- 4-22	3,765	suspended
Continental, No. 3 Sulphur Mountain, Ventura Co.	22- 4-22	6,740	suspended
Lockwood Oil Co., Well No. 1, Ventura Co.	21- 4-22	2,860	hd. sd. drilling
Milham Explin., No. 1-A Buttonwillow, Kern Co.	28- 8-21	340	sd. drilling
Milham Explin., No. 2 Buttonwillow, Kern Co.	8-28-23	4,662	gas well—idle
Milham Explin., No. 3 Buttonwillow, Kern Co.	8-28-23	2,730	gas well—idle
Milham Explin., No. 4 Buttonwillow, Kern Co.	8-28-23	2,694	gas well—idle
Milham Explin., No. 5 Buttonwillow, Kern Co.	6-28-23	2,670	gas well—idle
Milham Explin., No. 6 Buttonwillow, Kern Co.	5-28-23	2,500	gas well—idle
Milham Explin., No. 7 Buttonwillow, Kern Co.	8-28-23	2,676	gas well—idle
Milham Explin., No. 8-A Buttonwillow, Kern Co.	6-28-23	2,720	suspended
Milham Explin., No. 9 Buttonwillow, Kern Co.	8-28-23	2,673	gas well—idle
Milham Explin., No. 10 Buttonwillow, Kern Co.	8-28-23	4,270	heavy gas
Elmer Oil Co., No. 1 Shafter, Kern Co.	8-28-23	2,672	suspended
Elmer Oil Co., No. 1 Bena, Kern Co.	8-28-25	6,067	resume work
Elmer Oil Co., No. 1-A Rosedale, Kern Co.	15-30-30	3,006	hd. sd. drilling
General Pet., No. 1 Rosedale, Kern Co.	33-29-26	4,720	sd. sh. drilling
The Texas Co., No. 1 Edison, Kern Co.	13-29-26	Mtl.	building rig
Symark Oil Co., No. 1 Edison, Kern Co.	23-29-29	Mtl.	building rig
Heyd, Frank, No. 1 Edison, Kern Co.	24-29-29	1,630	bl. sh. drilling
Shell Oil Co., No. 1 Lerdo, Kern Co.	26-29-28	....	material
General Pet., No. 1 McFarland, Kern Co.	5-29-27	4,190	plugged
Union, No. 2 San Emidio, Kern Co.	25-26-25	6,219	abandoning
Currency Pet. Co., No. 1 Jacalitos, Fresno Co.	5-10-21	3,670	suspended
Currency Pet. Co., No. 2 Jacalitos, Fresno Co.	28-21-14	2,302	rebuild rig
Hornaday & Huggins, No. 1 Kerman, Fresno Co.	14-21-14	350	suspended
Rio Grande Oil Co., No. 1 Kerman, Fresno Co.	32-14-18	4,503	sd. sh. drilling
Shell Oil Co., No. 2 Westhaven, Fresno Co.	14-13-17	....	location
Shell Oil Co., No. 4 Westhaven, Fresno Co.	26-19-18	3,070	cemented
Cates Oil Co., No. 1 Joaquin Ridge, Fresno Co.	6-20-18	2,912	run test
Oceanside Oil Co., No. 1 Krayenhagan, Fresno Co.	7-19-15	114	suspended
Petroleum Securities, No. 1 Huron, Fresno Co.	33-22-17	138	suspended
Petroleum Securities, No. 2 Huron, Fresno Co.	20-20-16	695	suspended
Pismo Dome Oil Co., No. 1 Pismo, San Luis Obispo Co.	28-20-16	6,105	sd. sh. drilling
Union, No. 1 Huasna, San Luis Obispo Co.	5-32-13	1,120	cleaning out
Union, No. 1 North Huasna, San Luis Obispo Co.	34-32-15	3,940	br. sh. drilling
Midwest Refining Co., No. 1 Huasna, San Luis Obispo Co.	12-32-14	4,295	br. sh. drilling
Panorama Oil Co., Well No. 1, San Luis Obispo Co.	34-31-15	2,212	pipe froze
Paso Robles Synd., No. 1 Paso Robles, San Luis Obispo Co.	7-31-21	4,019	cleaning out
Shell, No. 5 Guadalupe, Santa Barbara Co.	27-27-11	3,030	br. sh. drilling
Shell, No. 6 Guadalupe, Santa Barbara Co.	36-10-35	2,510	abandoned
Petroleum Securities, No. 1 Goleta, Santa Barbara Co.	25-10-35	1,975	sd. drilling
Union, No. 1 Buel Canyon, Santa Barbara Co.	X- 7-31	4,713	br. sh. drilling
Western Gulf, No. 2 Gaviota, Santa Barbara Co.	X- 5-33	1,806	redrilling
Richfield, No. 1 Point Conception, Santa Barbara Co.	X- 5-35	Rig	rigging up
Standard, No. 1 Point Conception, Santa Barbara Co.	X- 5-34	....	location
Standard, No. 1 Point Arguello, Santa Barbara Co.	35- 6-36	2,428	idle, litigation
Gaviota Oil Co., No. 1 Lompoc, Santa Barbara Co.	9- 7-35	1,411	sd. sh. drilling
Barnsdall, No. 3 Goleta, Santa Barbara Co.	1- 4-30	1,375	fishing
Calif. Oil Prod. No. 1 San Marcos, Santa Barbara Co.	3- 4-28	2,490	plug back
General Pet. No. 1 Goleta, Santa Barbara Co.	21- 4-28	101	sd. drilling
General Pet. No. 1 Capitan, Santa Barbara Co.	5- 4-30	4,573	suspended
Shell, No. 1 Orella, Santa Barbara Co.	36- 5-31	1,348	oil sand
Pacific Western, No. 1 Naples, Santa Barbara Co.	7- 4-29	5,950	hd. sd. drilling
System Oil Co., No. 1 Orcutt, Santa Barbara Co.	36-10-34	4,000	hd. sd. drilling
Keystone Oil Co., No. 1 Santa Maria, Santa Barbara Co.	33-10-34	4,280	recemented
Wildcat Oil Co., No. 1 Santa Maria, Santa Barbara Co.	20-10-35	3,012	sd. sh. drilling
Keystone Oil Co., No. 1 Surf, Santa Barbara Co.	18- 7-35	1,731	hd. sd. drilling
Channel Oil Co., Well No. 1, Santa Barbara Co.	29- 4-27	2,604	sd. sh. drilling
Channel Oil Co., No. 1 Fellowship, Santa Barbara Co.	29- 4-27	6,304	suspended
Pacific Western, No. 1 Gibraltar, Santa Barbara Co.	14- 5-27	2,070	seepe. drilling
Continental, No. 1 Carpenteria, Santa Barbara Co.	33- 4-25	Rig	rigging up
Continental, No. 2 Carpenteria, Santa Barbara Co.	33- 4-25	4,130	gas well—idle
Colusa Oil Co., Well No. 1, Colusa Co.	31-15- 4	4,460	fishing
North Counties Oil Co., Well No. 2, Humboldt Co.	36- 2- 1	630	hd. sd. drilling
Humboldt Oil Co., Well No. 1, Humboldt Co.	6- 2- 1	2,205	suspended
Applegate & Renshaw, Well No. 1, Merced Co.	24- 6-10	3,041	suspended
Kuhns, H. L., Well No. 1, Merced Co.	8-12-19	3,750	suspended
Foster & Hammil, Well No. 1, Alameda Co.	21- 3- 3	660	suspended
Calhoma Oil Co., No. 1 Livermore, Alameda Co.	9- 3- 3	1,150	hd. sd. drilling
Producers Oil Co., No. 1 San Lucas, Monterey Co.	30-21- 9	1,549	abandoned
Shell, No. 1 Dudley, Monterey Co.	15-22- 9	....	material
Chessher, H. B., No. 1 Dudley, Monterey Co.	8-22- 9	3,765	resume work
Union, No. 1 King City, Monterey Co.	8-22- 8	....	material
Standard, No. 1 King City, Monterey Co.	23-22- 7	1,907	br. sh. drilling
Continental, No. 1 Bradley, Monterey Co.	32-24-11	622	br. sh. drilling
Brown, W., No. 1 Parkfield, Monterey Co.	15-23-14	5,955	suspended
Tuck Oil Co., No. 1 Los Gatos, Santa Clara Co.	15- 8- 1	500	sd. sh. drilling
Pet. Sec., No. 1 Rich Grove, Tulare Co.	22-24-27	852	suspended
Dudley Ridge Synd., No. 1 Tulare, Kings Co.	12-23-19	2,138	hd. sd. drilling
Porter, H. B., No. 1 Devils Den, Kings Co.	9-24-17	1,305	gas, shut in
O'Donnell, J. E., No. 1 Tulare, Kings Co.	7-23-20	1,290	hd. sd. drilling
Associates Pet., No. 1 Lewis Creek, San Benito Co.	5-19-10	Rig	suspended
Twin States Oil Co., No. 1 Soldani, Mendocino Co.	14-12- 7	501	suspended
		725	redrilling

IMPORTANT SOUTHERN CALIFORNIA WILDCATS

The Texas Co., No. 1 Clearwater, Los Angeles Co.	8- 4-12	5,250	gr. sd. drilling
Standard, No. 1 Hawthorne, Los Angeles Co.	5- 3-14	7,255	gr. sd. drilling
Ohio Oil Co., No. 1 Del Rey, Los Angeles Co.	21- 2-15	4,491	hd. sd. drilling
Jackson, R. W., No. 1 Whittier, Los Angeles Co.	19- 2-11	1,449	recemented
Burlingham Pet. Co., No. 1 Compton, Los Angeles Co.	17- 3-13	2,204	cleaning out
Lee & Brainerd, No. 1 Rosecrans, Los Angeles Co.	17- 3-13	Rig	suspended
Johnson, D. W., No. 1 Compton, Los Angeles Co.	21- 3-13	....	foundation
Hanners, George, No. 1 Watts, Los Angeles Co.	8- 3-13	Rig	idle
Jackson, R. B., No. 1 Watts, Los Angeles Co.	8- 3-13	Rig	suspended
Cal. Well Drlg. Co., No. 1 Compton, Los Angeles Co.	11- 4-13	8,500	will test
Hansen, N. J., No. 1 Watson, Los Angeles Co.	17- 4-13	Rig	suspended
Pugh Miller Drlg. Co., No. 1 Calabasas, Los Angeles Co.	6- 1-17	2,550	suspended
Russell Oil Co., No. 2 Joughin, Los Angeles Co.	23- 3-17	2,096	gr. sh. drilling
Pomona Oil Co., Well No. 1, Los Angeles Co.	32- 1- 8	1,220	set pipe
Anchor Oil Co., No. 1 Puente, Los Angeles Co.	19- 2-10	4,820	suspended
Rucker, R. C., No. 1 Puente, Los Angeles Co.	27- 2-10	2,180	cleaning out
Urmi Oil Co., No. 1 Puente, Los Angeles Co.	31- 2- 8	775	redrilling
Prairie Oil Co., No. 1 Montebello, Los Angeles Co.	32- 1-12	5,715	gr. sd. drilling
Monterey Park, No. 1 Jepson, Los Angeles Co.	25- 1-12	5,300	gr. sd. drilling
West, L. M., No. 1 El Monte, Los Angeles Co.	16- 1-11	633	set casing
Union Oil Co., No. 1 Richfield, Los Angeles Co.	13- 3- 9	1,106	hd. sd. drilling
Southwestern Drlg. Co., No. 1 Richfield, Los Angeles Co.	21- 3- 9	5,777	wet
Superior Oil Co., No. 1 Atwood, Los Angeles Co.	4- 4- 9	Rig	rigging up
Coastline, No. 1 Devils Canyon, Los Angeles Co.	21- 5-17	960	sd. sh. drilling
Queen, J. M., No. 1 Newhall, Los Angeles Co.	22- 3-16	230	fishing
Anderson, P. B., No. 1 Hasley Canyon, Los Angeles Co.	1- 3-16	567	recemented
So. Calif. Drlg. Co., No. 1 Newhall, Los Angeles Co.	13- 3-16	1,410	to test
Shell, No. 1 Coyote, Orange Co.	28- 3-10	5,491	sd. sh. drilling
Beard, G. F., No. 1 Brea Canyon, Orange Co.	30- 2- 9	934	hd. sd. drilling
Mesa Pet. Co., No. 1 Newport, Orange Co.	21- 6-10	4,910	suspended
Western Gulf, No. 2 Newport, Orange Co.	21- 6-10	296	sd. drilling
Oil Well Eng. Co., No. 1 Newport, Orange Co.	21- 6-10	2,806	recemented
Hall Pet. Co., No. 1-A Murrietta, Riverside Co.	23- 7- 3	672	sd. drilling
Hemet Pet. Co., No. 1 Ward, Riverside Co.	9- 5- 1	3,403	hd. sd. drilling
Imperial Valley Oil Co., Well No. 1, Imperial Co.	32-11-10	2,980	suspended
Davenport Oil & Gas Co., No. 1 San Marcos, San Diego Co.	30-12- 8	847	suspended
Turner, S. S., No. 1 Escondido, San Diego Co.	25-12- 2	2,048	sd. sh. drilling



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Maverick County Wildcats Important

Two Tests by Rycade, Each More Than a Mile Deep and Showing Much Gas, Likely to Put Area Definitely in Producing Column

By B. D. Stevenson
Staff Correspondent, Southwest Texas Fields

SAN ANTONIO, Tex., Sept. 16.—There were 325 test listed in Southwest Texas at the close of the past week and more than half of these are wildcat tests. Features of the week are that the Rycade Oil Corp. in Maverick County, has two tests, each more than a mile deep and each showing a lot of gas and likely to fix definitely that territory in the producing column. The Texas Company's No. 1 Cude in the Dale area in Caldwell County, completed with an initial flow of 192 bbls. in 24 hours from Serpentine, is now swabbing 200 bbls. and looks like a fairly good well. In the Pettus area in Bee County Mission Drilling Co.'s No. 3 Ray at 4,062 feet is flowing 5,000,000 feet of gas and spraying some high gravity oil but is likely yet to make an oil well. In the Darst Creek area Sun Oil Co.'s No. 1 Manford, offsetting the R. R. Penn No. 1 Manford, is down below 1,500 feet, which is more than half-way to the pay and by the end of the week should be in the pay, topped in the Penn well at 2,414 feet.

These things and an active leasing campaign across the southern part of Bexar County in which Humble and Gulf have purchased generously and have paid good prices are serving to keep the oil business in Southwest Texas from becoming dull. In the Laredo district there were interesting completions and locations.

Rycade Well Showing Gas

Two years or more ago Rycade Oil Corp. startled the oil industry by drilling the No. 1 Chittim in Maverick County into 29,000,000 feet of gas (gauged) and about 75 bbls. (estimated) of high gravity oil at 5,590 feet, the first important production in that part of the State and 100 miles from any other oil or gas production. Also it was probably coming from the Trinity beds and was not only the deepest production in Southwest Texas in feet but also geologically. That hole was drilled deeper and sidetracked and fished and had all sorts of trouble, and finally was plugged and abandoned.

Now the Rycade is down 5,470 feet in the No. 3 Chittim, which is a north offset to the abandoned No. 1 Chittim, and it is showing a lot of gas which is being held down with the drilling fluid. It has set 6⅝-inch casing at 5,470 feet to guard against possible trouble. In addition to the No. 3 Chittim showing a lot of gas the No. 4 Sullivan about 3 miles nearly due west is down 6,521 feet and making about 1,000,000 feet of gas daily. These tests are on a structure that has been worked out by geologists and which is believed to be about 45 miles long running northwest and southeast. Eight miles due northwest from the Rycade's No. 4 Sullivan, The Texas Company is down nearly 2,000 feet in the No. 1 Bandera County School land, the test being located on what is supposed to be the trend of the structure.

Pettus Area

Mission Drilling Co. is down 2,680 feet in its No. 4 Ray in Bee County, about a half mile northwest of where its No. 2 Ray came in for about 20,000,000 feet of gas at 2,890 feet. The No. 4 should be in the pay some time this week. The No. 3 Ray, located 3 miles east of it and in a sand at 4,062 feet and reported two weeks ago as a probable oil well and opening a new pool, is making about 5,000,000 feet of gas and a spray of oil. This test has not yet been completed. The trouble is in keeping it from sanding up but even though it is taking time to learn how to handle the situation, the test has all the signs of eventually being completed as an oil well.

Darst Creek Area

Everything is quiet in the Darst Creek area in Guadalupe County around the two Texas Company wells in the Jacob Darst Survey 10 miles east of Seguin with the exception that the Sun Oil Co. is down pretty well on its No. 1 Manford, an east offset to the R. R. Penn No. 1 Manford. By the close of this week it ought to be in the pay or close to it at around 2,418 feet, where it was found in the Penn well. Also the Magnolia is rigging up on the Appling tract in this area. The R. R. Penn and Sun Oil Co. tests are 6 miles northeast of the Texas Company wells in the Jacob Darst Survey, and in the direction of the Joe Bruner Field. The two Texas Company wells are producing from the Edwards lime at a little below 2,600 feet and the Penn well on the Manford is 2,418 feet deep and not sure what it is producing from.

The shut-down agreement around the two Texas Company wells is still in force but the expectation is that when the Sun Oil Co. completes its No. 1 Manford, if it makes a producer, there will be drilling activity in that part of the area. The Magnolia Petroleum Co. the last week made a location on the R. C. Alling tract in the James Hodges Survey about 1½ miles southwest of the Penn No. 1 Manford and direct on line between the Penn No. 1 Manford and The Texas Company's No. 1 Dallas Wilson in the Darst Survey. It is the only test in the 6 miles of territory between the two producing spots.

Laredo District

Trapshooter Reilly Oil & Royalties Co. No. 2 Benavides ine NE cor. NE NW of Survey 685 in the Carolina-Texas Field, at 3,066 feet is credited with an initial production of 80 bbls. and is now installing tubing. It was reported in last week's Oil and Gas Journal as performing in such a manner when first drilled in that it was expected to be a bigger well. It is the second test on the south edge of the Carolina-Texas Pool to get oil production at that depth, the No. 1 Benavides by the same operator being just a quarter of a mile to the east.

Schoolfield-O'Byrne

In the Schoolfield-O'Byrne Pool in Duval County in the Laredo district, the S. & O. Oil Co.'s No. 8 Hahl, NW cor. Block 22, Survey 250, is in and flowing 250 bbls. at 2,332 feet. It is on the west edge of the field and one of the best wells in the field. It is a south offset to the No. 4 Bowe of the same company which came in a few weeks ago and which got special mention at the time because on the west edge of the pool and a bigger than the average well.

In that same pool the Magnolia Petroleum Co. has abandoned at 5,370 feet its No. 7-B Hahl at the north end of the pool which failed to get pay in the 2,340-foot sand and is dry and abandoned at 5,370 feet.

In the Kohler Ranch area in Duval County, Humble Oil & Refining Co. has made two new locations but they are inside locations and of no particular significance.

In the gas area immediately west and south of Bruni in Webb County, O. W. Killiam's No. 12 Bruni is a 30,000,000-foot gas well at 2,355 feet and located 350 feet from the SE line and 150 feet from the SW line of Section 3 of the Bruni lands. Houston Oil Co. completed a couple of gas wells in that area several months ago and efforts were made to extend the field to the east towards the town of Bruni but with only partial success. Killam has now moved west and got a big gas well.

Magnolia Extends Pool

The most important feature of the Laredo district the past week was the Magnolia Petroleum Co. bringing in its No. 1 C. Benavides in the NE cor. of Survey 662, which extends the gas pool discovered by J. J. O'Hern and laying north of the Mag-Cole Pool 2 miles to the north and 1½ miles to the east. Depth is 2,304-22 feet, which is practically the same as in the several gas wells completed on the south. The Magnolia's No. 1 C. Benavides gauges 30,000,000 feet.

In the same territory J. J. O'Hern completed his No. 1 Valdez in the NE cor. of Survey 754 at 2,318 feet for 40,000,000 feet of gas. It is south of the gas area and northeast of the oil production in the Mag-Cole Pool.

Humble Field—Duval

Humble Oil & Refining Co.'s No. 22 Kohler, Survey 395, located 495 feet west line, 165 feet north line, is at 1,854-78 feet, showing gas, oil and salt water; No. 33 Kohler, Survey 164, located 330 feet north and west lines, at 1,470 feet, drilling. Houston Oil Co. of Texas' No. 1 Peters, Survey 161, located 495 feet west line, 165 feet south line, is rigging up. Co-operative Drilling Co.'s No. 3 Dinn, NE of NW of Survey 454, located 60 feet west line, 450 feet south line, is location.

Piedras-Pintas Dome

Suladie-Peters-Jack's No. 1 Walsh, Survey 185, located 800 feet west line, 900 feet south line, at 700 feet, drilling.

Schoolfield-O'Byrne Field

C. E. Long's (Shell) No. 1 C. W. Hahl, Survey 280, Block 24, located 150 feet north line, 750 feet east line, is rigging up. Magnolia Petroleum Co.'s No. 7 Hahl, Survey 250, Block 24, located 150 feet east line, 750 feet north line, is derrick; No. B-7 Hahl, Survey 61, located 650 feet south line, 2,950 feet east line, at 5,350 feet, drilling. S. & O. Oil Co.'s No. 7 Hahl, Survey 250, tested 450 feet south line, 150 feet west line, is derrick; No. 8 Hahl, Survey 25, Block 22, located 150 feet north and west lines, at 1,800 feet, drilling.

Randado Field—Jim Hogg

Randado Oil Corp.'s No. 35 Palacious, Survey 291, Block 2, located 150 feet south line, 450 feet east line, at 100 feet, standing.

Henne-Winch-Fariss Field

George S. Marshall's No. 4 Holbein, Survey 11, Block 10, Share 3, located 150 feet south and west lines, is derrick; No. 5 Holbein, Share 3, Block 10, Survey 15, located 150 feet north and west lines,

(Continued on Page 139)

WILDCAT OPERATIONS IN SOUTHWEST TEXAS

ARANSAS COUNTY

United North & South Dev. Co.'s No. 1 Kate Edwards, Lewis Sur. ..... Drlg. 4,400 ft.

ATASCOSA COUNTY

Tom Draper's No. 1 McCoy, Sur. 234 ..... Location.
Amphion Oil Co.'s No. 1 Sam Schlisser ..... Temp. aband. 2,320 ft.

BASTROP COUNTY

Gulf Production Co.'s No. 2 Bell, Riley Sur. ..... Location.
Humble O. & R. Co.'s No. 1-A Wolfenbarger, S. Wolfenbarger Sur. ..... Location.
Jim Harper and others' No. 1 R. R. Mitchell ..... Derrick.
Howell Oil Corp.'s No. 1 F. Wichman ..... Fishing 1,995 ft.
Nelson et al's No. 2 Rundus, 100 ft. N of No 1 ..... Drlg. 2,200 ft.
Hadley Oil Co.'s No. 1 F. Kiel, R. H. Grimes Sur., 150 ft. E line, 1,000 ft. S line ..... Drlg. 850 ft.
E. W. Ogden's No. 1 Goodman ..... Drlg. 2,540 ft.
Humble Oil & Refg. Co.'s No. 1 Hendris, L. G. Lentz Sur., 150 ft. N and E lines ..... Location.
Pacific Oil & Gas Co.'s No. 1 Darnell & Bickler, Martha Baker Sur. ..... Derrick.
Pacific Oil & Gas Co.'s No. 1 Spooner, Leverenz Sur. ..... Drlg. 3,420 ft.
Moore & Ortman's No. 1 Ortman, Andrew Graham Sur. ..... Location.

BEE COUNTY

Houston Oil Co.'s No. 1 McKinney, L. C. Randolph Sur. ..... Rigging up.

BEXAR COUNTY

Guy S. Fisher's No. 1 S. L. Beck, P. W. Hays Sur. ..... Drlg. 275 ft.
F. H. Eckert's No. 1 Sandemer, Survey 52 ..... Drlg. 540 ft.
Hamilton & Kennon's No. 1 Hamilton, near Gas Ridge ..... Drlg. 1,665 ft.
Moore-Jauer's No. 1 Holly R. Ellison ..... Plugged back to 1,610 ft.
C. J. Le Compte's No. 3 R. Diaz, J. M. Urrigas Sur. ..... Location.
Leon Oil Co.'s No. 1 Reiniger, 300 ft. E line, 215 ft. S line ..... Drlg. 1,040 ft.
E. G. Potter's No. 1 Watson, B. Martinez Sur. ..... Coring 2,351 ft.; Buda limestone.

BLANCO COUNTY

J. Bekning's No. 1 Butler, Butler Sur. ..... Moving in machinery.
J. E. Forbes and others' No. 1 Bruckner ..... Drlg. 1,255 ft.; shut down contract depth.
Ashe & Marshall's No. 1, 5 mi. S Johnson City ..... Erecting derrick.

BROOKS COUNTY

Milam Drlg. Co.'s No. 6 Reilly Allen, SW part of county ..... Shut down.
A. W. Dinn's No. 1-B Garcia ..... Drlg. 1,290 ft.; shale.
Houston Oil Co. of Texas' No. 1 Lassiter, Survey 69 ..... Drill stem test made 4,155 ft.; show for good gasser.

CALDWELL COUNTY

Cranfill & Reynolds' No. 1 Berensdorf, A. Floyd Sur. ..... Location.
Cranfill & Reynolds' No. 2 Dauchy ..... Drlg. 2,000 ft.
W. H. Harper's No. 3 Thomas, J. Roberts Sur. ..... Moving in machinery.
Harper and others' No. 2 Miller, F. Martinez Sur. ..... Shut down 1,650 ft.; waiting on orders.
H. C. Ratcliff's No. 1 J. E. Cardwell, J. P. Bell Survey ..... Drlg. 1,520 ft.
John T. Callahan and others' No. 1 W. Ellison ..... Drlg. 2,596 ft.
J. S. Brutsche's No. 1, R. L. Quinn Sur. ..... Location.

COLORADO COUNTY

Cagle-Concord Oil Co.'s No. 1, Sec. 42 ..... Spudded in.

DE WITT COUNTY

H. T. Ree's No. 1 Lunhardt ..... Building derrick.

DUVAL COUNTY

Magnolia Petroleum Co.'s No. 1 Corbett, Sur. 96 ..... Drlg. 4,205 ft.
National Oil Co.'s No. 2 Ball, Agua Poquita Sur., Blk. 3 ..... Derrick.

EDWARDS COUNTY

A. M. Griffith's No. 1 Wardlaw ..... Shut down 3,000 ft.

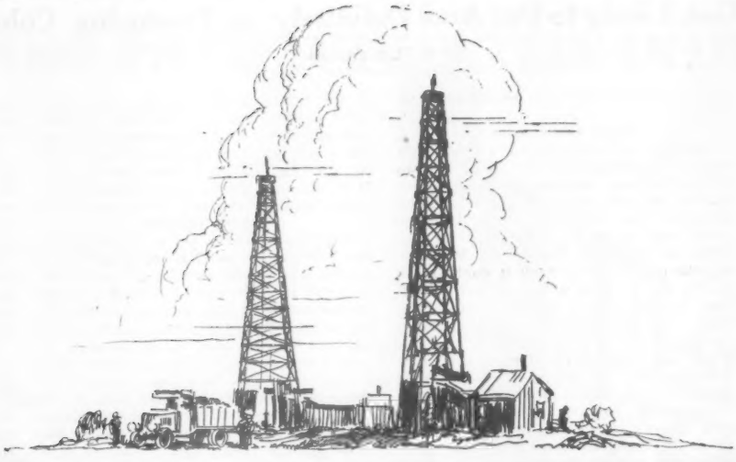
FAYETTE COUNTY

Muldoon Oil & Gas Co.'s No. 1 Kemp, M. Smith League ..... Derrick.
Magnolia Petroleum Co.'s No. 1 Henry Gully ..... 3,975 ft.; fishing for 4-joint drill stem.
National Oil Co.'s No. 1, A. Hanger Williams League ..... Drlg. 2,470 ft.
W. J. Kelly's No. 1 Burke ..... Shut down 1,000 ft.; account of title.

GOLIAD COUNTY

Humble O. & R. Co.'s No. 1-A Mueller, Luis Carriana Sur. ..... Drlg. 1,030 ft.
F. P. Zoch's No. 1 Kaufman ..... Rigging up.

(Continued on Page 140)



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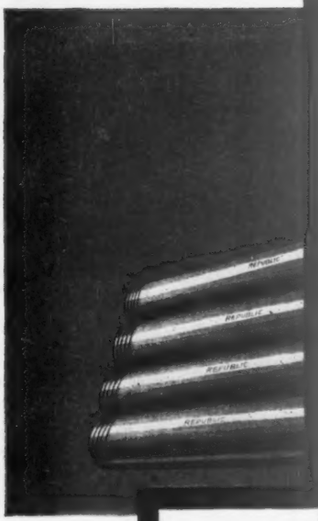

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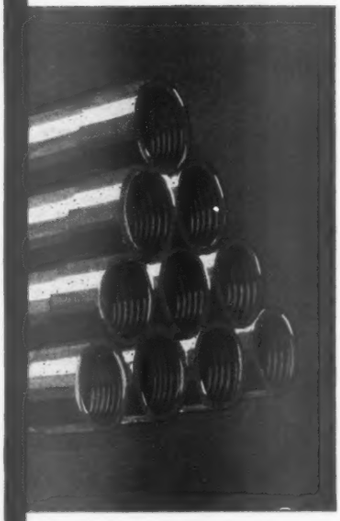

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Find New Coastal Dome at Bayou Blue

Refugio Field Extended 2,500 Feet. Another Deep Sand Completion at Barbers Hill. Good Well at Big Creek

By Neil Williams
Staff Correspondent, Gulf Coast Fields

HOUSTON, Tex., Sept. 16.—With a wildcat at Bayou Blue, Iberville Parish, Louisiana, standing with a hole full of oil, it was indicated at the close of the week that another coastal salt dome was to be opened for production. This discovery, a 2,500-foot extension of the Refugio Field, Refugio County, Texas, the completion of another deep sand well at Barbers Hill, Chambers County, and the addition of another prolific producer on the north side of Big Creek were the principal developments on the Gulf Coast the past week from a new well standpoint.

At Bayou Blue, Standard Oil Co.'s No. 3 Wilbert flowed several heads from a shallow sand encountered at a total depth of 1,925 feet, and now with the hole standing full of oil it is estimated the well will be good for from 100 to 150 bbls. daily as a pumper if it will not flow with tubing.

Bayou Blue is one of the coast's oldest geophysically discovered salt domes, being found in 1927. Since then three tests have been drilled by the Standard Oil Co. of Louisiana and one by the Union Sulphur Co., not including the new well and Standard's No. 2 Schwing, now drilling. Union Sulphur Co.'s test, No. 1 Schwing, was quiet with drill stem stuck but the others were drilled to salt and abandoned.

Several showings were encountered in these other tests, and, in one, Standard's No. 1 Schwing, a sand at 3,633-48 feet gave promise of making a good producer but attempts to test it proved unsuccessful and the hole was taken on down to the salt. The sand in No. 3 Wilbert is the shallowest yet found at Bayou Blue.

Extension at Refugio

An extension of 2 500 feet to the southeast at Refugio attracted considerable attention to that field. This is one of several important extensions which have been made at that field in the past several months. The extension well is Mission Drilling Co.'s No. 1 Eskridge-Heard which was completed flowing 400 bbls. of pipe line oil through quarter-inch choke from sand at 3,653-59 feet. The nearest well is Houston Gulf Gas Co.'s No. 1 Cummings, completed last February flowing 500 bbls. at 3,699 feet. That latter still is making approximately 200 bbls. daily.

The importance of Refugio as a producing area is being recognized generally by operators with a constant string of good wells being brought in there. In the period of a little over a year since the first oil production was found the field has spread out over a length of approximately 2 miles, and, although the wells are not large the daily output has now been swelled to above 5,200 bbls.

With drilling now reaching eastward into the city limits of the city of Refugio, a very active city lot drilling play is getting under way which promises a rapid proving up of the eastern side of the field. The field already is spread out over a large area and with this new work and the drilling up of much territory remaining in the proven area it is expected Refugio, although not a salt dome, will become one of the biggest producers on the Gulf Coast.

Two other wells were completed at Refugio during the week, these being Sun Oil Co.'s No. 2 Buckley, which came in flowing 150 bbls. daily on a five-sixteenths-inch choke from sand at 3,697-3,707 feet, and Union Exploration Co.'s No. 2 Rooke, a gas well from sand at 3,665-71 feet.

The discovery of a deep sand in Mission Drilling Co.'s No. 1 O'Brien also adds to the further possibilities of Refugio. This sand at 5,513-21 feet, the deepest to which any test in the field has been taken promises to make a good well but at the close of the week still was waiting the 5⅜-inch casing which will be cemented on the sand. Two weeks ago this test tried to blow out from that sand. At first it was thought that the sand was only a gas sand but in pulling the drill stem the drillers got four fourbles of oil on the bottom.

Barbers Hill

Although there were five deep wells testing at Barbers Hills at the close of the week only one at this writing has been completed, D. B. Daniel's No. 1 Woodward, flowing 1,500 bbls. of pipe line oil through a half-inch choke from sand at 5,245 feet. This well is an offset to Republic Production Co.'s No. 1 Kirby, which early in August opened a new producing area on the southeast side of the dome about midway between the deep pools on the south and on the east.

Gulf Production Co.'s Davis tract on the north side of Big Creek again showed up with big production when No. 55 Davis came in early in the week flowing 3,500 bbls. of pipe line oil from sand at total depth of 4,097 feet with two joints of screen in the hole. This well is one of a series of similar wells which Gulf has been completing on this tract around the edge of the dome.

Vacuum Oil Co. and Gulf Refining Co. added two more producers at Lockport, Calcasieu Parish. Their No. 3-A fee, the better, came in flowing 300 bbls. of pipe line oil from sand at 3,977 feet. Their No. 15 Miller, a workover, is flowing 500 bbls. of fluid, 90 per cent water, at 4,380 feet. Their No. 7 Bordages, completed the previous week, has increased its flow and now is making 300 bbls. of pipe line oil.

Among Abandonments

Although there were a large number of other completions on the coast during the week, they were of little consequence, the majority being small pumpers. Among the abandonments was Gulf Refining Co.'s No. 15 United Land Co. at Sorrento, Ascension Parish, Louisiana, quit in heaving shale at approximately 5,700 feet. This is the deepest test ever drilled at Sorrento and marks the failure of another attempt to find deep flank sand production on that dome. The production so far has been from the cap rock on top the dome being between 1,660 and 1,700 feet.

Another failure was Humble Oil & Refining Co.'s No. 1 Glass on the south side of Humble. This test, an attempt to extend the production on the south side a distance of approximately a mile, bailed salt water at 5,025 feet The deep development on the south side of Humble has produced no successful completions for several weeks but a new series of deep tests now are on or nearing the pay level and should bring this area back into the spotlight.

Pure Oil Co. has just completed blocking up an area lying about a mile from the town of Carencro, Lafayette Parish, Louisiana, where that company has checked a new geophysical dome. This dome is of particular interest as it is the first ever to be found in that parish and marks an important extension of the Gulf Coast salt dome territory. This is one of a half dozen new domes found recently by Pure.

Yount Lee Oil Co.'s No. 4 Chambers on the south side of Barbers Hill, the deepest test on the Gulf Coast, was in heaving shale Saturday at 8,184 feet. The Jackson formation was topped at 8,169 feet. As the test has not been able to get back to bottom it is probable this will stand for a time as the deep test record on the coast.

Daily Average Production

Daily average production of coastal fields increased only slightly the past week. The figures by fields were:

TEXAS	
Allen	13
Barbers Hill	20,893
Batson	1,282
Big Creek	3,016
Blue Ridge	2,767
Brenham	375
Boling	1,340
Clay Creek	1,950
Damon Mound	505
DeWalt	12,319
Fannette	131
Goose Creek	5,497
High Island	1,221
Hull	8,900
Humble	8,578
Jasper County	10
Lost Lake	850
Markham	365
Nash	400
North Dayton	489
Orange	2,862
Orchard	105
Pierce Junction	14,478
Port Neches	525
Refugio	5,479
Raccoon Bend	8,282
Sheeks	245
Saratoga	979
Sour Lake	2,535
So. Liberty-So. Dayton	5,238
Spindletop	25,061
West Columbia	6,384
Total Texas Coast	143,274
Week ending Sept. 7	142,825
Increase	449

SOUTH LOUISIANA	
Anse La Butte	50
Bayou Boullion	120
Black Bayou	53
Dog Lake	15
Edgerly	738
Jennings	2,122
Hackberry	4,262
Lockport	3,667
Port Barre	150
Sorrento	98
Starks	254
Sulphur	6,300
Sweet Lake	21
Vinton	4,574
Welsh	615
Total South Louisiana	23,036
Week ending Sept. 7	22,569
Increase	467
Total Gulf Coast	166,310
Week ending Sept. 7	165,394
Increase	916

GULF COAST FIELDS AND WILDCATS

Week Ended September 14

BARBERS HILL—CHAMBERS COUNTY

Mills Bennett Production Co.'s No. 1 Collier (southeast)..Drlg. hard shale 5,071 ft.
Mills Bennett Production Co.'s No. 1 Barber (north side)..Drlg. hard shale 4,719 ft.
Mills Bennett Production Co.'s No. 7 Barrow (workover)..Temporarily shut down 4,800 ft.
Mills Bennett Production Co.'s No. 3 Smith (workover)..Drlg. hard sand and lime 3,453 ft.
Mills Bennett Production Co.'s No. 3 Hammon-Armstrong (southeast) ..... Derrick.
Grayburg Oil Co.'s No. 1 Wilburn, southeast ..... Location.
Humphreys Corp.'s No. 8-A Kirby, north flank ..... Drlg. shale and lime 6,234 ft.
Humphreys Corp.'s No. 4-H Kirby, east side ..... Drlg. hard sand and lime 2,649 ft.
Humphreys Corp.'s No. 5-H Kirby, east side ..... Drlg. hard sand and lime 1,958 ft.
Humphreys Corp.'s No. 6-E Kirby, east side ..... Drlg. sandy lime 1,323 ft.
Humphreys Corp.'s No. 7-E Kirby, east side ..... Drlg. sand 338 ft.
D. B. McDaniels No. 1 Woodward (southeast) ..... Set screen 5,132 ft.; bailing.
D. B. McDaniels' No. 2 Woodward (southeast) ..... Comp. flowing 1,500 bbls. pipe line oil on half-inch choke 5,245 ft.
Republic Prod. Co.'s No. 2 Kirby (southeast) ..... Set screen 5,251 ft.
Rexal Oil Co.'s No. 3 McLean, east flank ..... Coring oil sand 5,149 ft.
Sinclair Oil & Gas Co.'s No. 1 McKinney (southeast) .... Drlg. sand and boulders 4,561 ft.
Sinclair Oil & Gas Co.'s No. 1 Wilburn (southeast) ..... Drlg. hard shale and lime 4,133 ft.
Sun Oil Co.'s No. 1 McKinney (southeast) ..... Drlg. shale 5,134 ft.
Sun Oil Co.'s No. 2 McKinney (southeast) ..... Drlg. sand 4,901 ft.
Sun Oil Co.'s No. 1 Wilburn (southeast)..... Drlg. lime 5,083 ft.
Sun Oil Co.'s No. 1 J. Wilburn ..... Spudded.
Superior Oil Corp.'s No. 1 Hooks-Collier, southeast ..... Drlg. sand 2,409 ft.
Superior Oil Corp.'s No. 2 Hooks-Collier, southeast ..... Spudded.
The Texas Company's No. 1 Wilburn (southeast) ..... Rig.
Yount Lee Oil Co.'s No. 4 Chambers, southwest ..... Drlg. heaving shale 8,184 ft.
Yount Lee Oil Co.'s No. 8 Chambers, south ..... Drlg. sand, shale and lime 4,105 ft.
Yount Lee Oil Co.'s No. 1 Kirby, southeast ..... Drlg. sand 6,587 ft.
Yount Lee Oil Co.'s No. 1 Woodward (southeast) ..... Set screen 5,459 ft. and made few heads; running tubing.
Yount Lee Oil Co.'s No. 2 Woodward (southeast) ..... Drlg. shale and lime 4,375 ft.
Yount Lee Oil Co.'s No. 3 Woodward (southeast) ..... Derrick.

BOLING—FORT BEND AND WHARTON

Sun Oil Co.'s No. 8 E. C. Farmer ..... Drlg. gyp 1,580 ft.
The Texas Company's No. 2 Pleasants, northwest ..... Drlg. sticky shale 4,532 ft.
Vacuum Oil Co.'s No. 3 Taylor, south side ..... Sidetracking 3,907 ft.; total depth sand 3,940 ft.

RACCOON BEND—AUSTIN COUNTY

Humble Oil & Refining Co.'s No. 2-B Mitchell ..... Rigging up to pump 3,366 ft.
Humble & Valley's No. 3 Mitchell ..... Rig.
Humble & Valley's No. 4 Walton ..... Drlg. shale 3,435 ft.
Humble & Valley's No. 5 Walton ..... Drlg. shale 1,778 ft.
Humble & Valley's No. 5-A Deitrichs ..... Drlg. shale and lime 2,378 ft.
Humble & Valley's No. 6-A Dietrichs ..... Rig.
Humble & Valley's No. 7 Dietrichs ..... Rig.
Humble & Valley's No. 2 Jackson ..... Drlg. shale and sand 3,234 ft.
Humble & Valley's No. 1 Graneau ..... Set surface casing 184 ft.
Humble & Valley's No. 3 Bellville School ..... Drlg. shale and lime 173 ft.
Humble & Valley's No. 4 Belleville School ..... Rig.
Humble & Valley's No. 2 Woodley ..... Drlg. sticky shale 1,029 ft.
Humble & Valley's No. 2-A Grawunder ..... To pump 3,335 ft.
Humble & Valley's No. 4-B Grawunder ..... Rig.
Humble & Valley's No. 2-C Grawunder ..... Drlg. shale and sand 3,180 ft.
Humble & Valley's No. 3 Grawunder ..... Derrick.
Humble & Valey's No. 3 Reese ..... Swabbing 3,516 ft.
Humble & Valley's No. 2 Beal ..... Comp. pumping 100 bbls. 3,347 ft.
Humble & Valley's No. 3 Payne ..... Drlg. sticky shale 3,304 ft.
Humble & Valley's No. 4 Urban ..... Drlg. hard sand 1,855 ft.
Humble & Valley's No. 5 Urban ..... Rig.
Humble & Valley's No. 4 Saunders ..... Drlg. sticky shale 2,017 ft.
Humble & Valley's No. 3 Mueller ..... Drlg. hard sand 2,715 ft.
Humble & Valley's No. 4 Mueller ..... Derrick.
Humble & Valley's No. 5 Mueller ..... Derrick.
Humble & Valley's No. 2 Helmuth ..... Drlg. sandy shale 1,172 ft.
Humble & Valley's No. 1 Diemer ..... Rig.
Humble & Valley's No. 3-A Bracey ..... Drlg. shale and lime 1,731 ft.
Humble & Valley's No. 2 J. W. Wilson ..... Set 10¾-in. casing 1,218 ft.
Humble & Valley's No. 1 McCalfland ..... Derrick.
Humble & Valley's No. 5 Gotosky ..... Rig.

DE WALT—FORT BEND COUNTY

Humble Oil & Refg. Co.'s No. 7 Brazos ..... Cem. 6⅝-in. casing 3,349 ft.

(Continued on Page 145)

Biggest Producer in Dixie District

Four Deep Well Completions, Deepest in the Shreveport Division, 6,351 Feet, Making 200,000 Feet of Gas

By D. H. Bancroft
Staff Correspondent, Louisiana-Arkansas

SHREVEPORT, La., Sept. 16.—Four deep well completions and what early indications make the biggest producer yet in the Dixie district of Caddo Parish were the headliners of the week's developments. The deepest producing well in the Shreveport division, Dixie Oil Co.'s No. 92 Dillon in Section 13-21-15, Caddo Parish, was listed as a completion, making 200,000 feet of gas from 6,100-20 feet, total depth 6,351 feet. The big Dixie district well was a Gulf completion and outranks that company's No. 1 Oden, up to this time the biggest producer in the pool. The Oden well, in the NE cor., Section 18-19-14, made 2,940 bbls. initial from 2,400 feet but the new one, No. 3 Hunter in the NE cor., Section 17-19-14, bailed in and made 195 bbls. the first hour, or at the rate of 4,560 bbls. clean oil. The bottom, at 2,436 feet was in about 20 feet of broken sand and shale with the last 4 feet solid sand.

This well is a west offset to the Standard Oil Co.'s No. 1 School in Section 16, a completion this week at 2,430 feet with 366 bbls. initial and a southwest offset to Ray-Dawes Drilling Co.'s extension well on the Hunter land which, coming in with an initial 1,500 bbls. from 2,424 feet also extended production northeast. Even without the Gulf's new producer this well would have attracted new attention to the Dixie district by the fact that it is behaving just opposite from all other Dixie producers in that instead of falling like a plummet after working off its head, it is increasing and for the past 24 hours turned 440 bbls. of clean oil into the tanks, an increase of 75 bbls. in four days.

The other deep well developments of the week were abandonment of Haynesville's deep test, Smitherman & McDonald's No. 1 Miller in Section 17-23-8, completion of Magnolia Petroleum Co.'s No. 5-A Robbins, Section 21-21-10, Webster Parish, as the second largest deep Trinity gasser in the Cotton Valley district, and the failure of the Arkansas-Louisiana Pipe Line Co.'s No. 1 Rye, Section 22-15-17, Monroe County, Mississippi.

Deepest Producer in Division

The Dixie's No. 92 Dillon had been under way for less than 60 days under two years and since leaving the known horizons which have produced as deep as 3,900 feet had made five tests; dry at 4,075 feet, salt water at 4,382 and 4,493 feet and an estimated 5,000,000 feet of gas in 5 feet of sand and shell at 6,124 feet. It had scarcely had time to clean itself when it bridged and was idle from early in November last year until April this year while waiting for installation of a rotary and draw works, the first unit of that type of rig in this part of the country. After this had been set up and the bridge drilled out it was tested again at 6,124 feet and made only 192,000 feet of gas at 1,000 pounds. It was dry at 6,208 feet and the last test at 6,351 feet showed for 150,000 feet of gas. Four and three-quarters-inch pipe had been cemented at 6,104 feet and after this last show the hole was plugged back and the formation producing the original show was shot with results scarcely improving the original showing, whereupon it was finished and the gas will be run through the company's gasoline plant adjoining the location before going to the Superior refinery for fuel.

Smitherman & McDonald's well in its later stages became a community proposition with the Gulf Refining Co. holding an option to take it over and go deeper after the original contract depth was reached in case production had not been obtained by that time. It was begun in October last year and the first test was made at 3,150 feet in the red beds, resulting in salt water. The next, at 4,118-22 feet was dry and the same results were obtained at 3,333-76 and 4,402 feet. Coring all the way down drill stem tests were made at 4,479 feet, salt water, and 4,509 feet dry. A slight show of gas was made at 4,595 feet, so slight as not to warrant hopes for commercial production and the hole was drilled without further tests to 4,780 feet where it has been standing since March.

Deep Well in Cotton Valley

Only one other deep well in Cotton Valley exceeded Magnolia Petroleum Co.'s No. 5-A Robbins, Ohio Oil Co.'s No. 2 Crichton in the same section—Section 21-21-10—gauged 60,000,000 feet from sand at 4,664-72 feet while the Magnolia well gauged 51,247,040 feet at 1,310 pounds from 12 feet of sand, total depth 4,667 feet. The same company's No. 6 Marshall, also in Section 21, was smaller in volume, 42,000,000 feet, but had a larger rock pressure, 1,600 pounds, the highest in any of these deep wells and the Standard Oil Co.'s recently completed No. 22-B Bodcaw in Section 28-21-10, which gauged 49,500,000 feet of gas from 4,612-19 feet showed 1,460 pounds.

Arkansas-Louisiana Pipe Line Co.'s No. 1 Rye also had been under way for a protracted period. It had gauged approximately 3,000,000 feet of gas at 2,693-2,715 feet but it had gone too far in the sand and salt water ruined it for a commercial well. Going deeper, it tested 82,000 feet of gas in 2 feet of sand at 3,539 feet and a few smaller shows. It was abandoned at 3,710 feet with the bottom in 2 feet of sand that filled the hole 1,500 feet in salt water. As another well in the same area must be started by November 9, under the terms of a lease on a school section, it is reported by R. L. Steffy's Mississippi scout service that the company (Arkansas Natural Gas Corp) will soon begin preparations for another test of the 2,700-foot horizon.

Richland Parish

Richland Parish gas field's second pay discovery well, Hope Producing Co.'s No. 1 Eubanks in Section 26-17-6, was completed gauging 7,653,000 feet of gas at 1,260 pounds from a total depth of 2,920 feet, approximately 500 feet lower than the original pay, and in the Glen Rose, first member of the Trinity group. It is an edge well in the northeast corner of the field and was dry when tested at 2,450 feet, the average depth of Richland production. How much development of this horizon in this or other parts of the field will follow remains to be seen. On the face of things it would appear that exploration of this horizon will be delayed or restricted as much as possible until depletion of the upper sand sets in. On the other hand owners of leases in the outlying portions of the district, particularly in this vicinity, will probably want to drill regardless of the ample supply of gas already available and the greater cost of these Trinity wells. They will have to if the trend and resources of this new production is to become established any time soon for at present it is more an unknown quantity than not.

Austin & McDonald's No. 1 Millsaps, in the SW NW, Section 17-17-6, which started all the recent drilling along the north edge of the field and beyond was written off the list as a 200,000-foot producer, total depth 2,510 feet, the same amounut it had tested at 2,437 feet. Stratigraphically beds in this part of the field are much lower than those of the Alto district though production has been obtained at the same depths as in that district. W. C. Feazel's No. 2 McCoy, Section 33-16-6, in the southern end of the field, tested 56,768,000 feet of gas at 1,100 pounds, total depth 2,450 feet.

Bossier Parish

H. L. Morgan's No. 1 Wetherbee, Section 21-19-11, Bossier Parish, 1¼ miles southwest of Bellevue shallow production is another highly interesting deep test. Developing a show of 4,000,000 or 5,000,000 feet of gas while ratholing 1,854 feet last week it killed the flow and will swing 6-inch pipe about 20 feet off bottom for a test. Salt water coming with the gas was analyzed at the State Conservation Department's laboratory and found to be the same as that coming from the Nacatoch, an important point in that the brines from the various sands in this division show different constituents.

Completed in March, 1927, as a 37,500,000-foot gasser at 3,062 feet, Bahan & Bahan's No. 1 Kilgore in Section 31-23-11, Carterville district of Bossier Parish, will be deepened a few feet in search of oil obtained by Louisiana Oil Refining Corp., in a well about a mile northeast. Ark-La. Pipe Line Co.'s No. 5-B Van Hoose, Section 36-16-12, Elm Grove district, was completed at 2,433 feet, making 12,000,000 feet of gas at 280 pounds. W. G. Gray's well on the Snyder land in Section 15-16-6, drilling gumbo at 3,708 feet, is to be

(Continued on Page 141)

WILDCAT OPERATIONS IN LOUISIANA-ARKANSAS

NORTH LOUISIANA

BIENVILLE PARISH

Company, farm and location—	Remarks:
W. G. Gray's No. 1 Snyder, SW NE, Sec. 15-17-6	Drlg. gumbo 3,708 ft.

BOSSIER PARISH

Corbett et als' No. 1 Murff, SE cor. NE, Sec. 18-17-11	S.D. 990 ft.
Nell & Lanier's No. 1 Biedenharn, SE cor., Sec. 23-21-14	S.D. 790 ft.
Walker et als' No. 1 Antrim, NW cor. SE, Sec. 28-22-13	S.D. 3,021 ft; made 57 ft. more hole; tested small show oil; arranging to deepen; T.D. 3,078 ft.
Woodmansee et als' No. 1 Bollinger, SE cor. NE, Sec. 9-22-11	S.D. waiting orders 3,532 ft.

CADDO PARISH

D. C. R. Oil Co.'s No. 2 Oden, 892 ft. W. 264 ft. S. NE cor. NE NW, Sec. 20-19-14	S.O.; tested dry 2,445 ft; S.D; W. O. 2,550 ft.
Lide et als' No. 1 Hunter, 200 ft. S, 200 ft. E, NW cor., Sec. 22-19-14	Cmtd. 6-in. 2,395 ft; arranging to test.
Lide et als' No. 1 Levee Board, 200 ft. S, 200 ft. W, NE cor., Sec. 24-19-15	Drlg. 1,668 ft.
R. W. Norton's No. 1 Hill, 630 ft. N, 1,260 ft. W, SE cor. NE, Sec. 33-23-16	Drlg. 2,537 ft.
S. T. Oynett, trustee's No. 1 Dixon, SW cor., Sec. 10-19-14.	Waiting on 6-in. to set at 2,389 ft.
I. N. Pharisa, trustee's No. 1 Oden, NE cor. SE NE, Sec. 19-19-14	Fishing for drill stem; T.D. 1,529 ft.
Standard Oil Co.'s No. 2 School, 330 ft. S, 330 ft. E, NW cor., Sec. 16-19-14	Location.
Woodley Pet. Co.'s No. 1-B Knight, Sec. 11-15-12	Bailed dry 2,600 ft; W.O.
J. E. Woodley's No. 1 Pittman, 200 ft. S, 200 ft. E, NW cor. NE, Sec. 23-19-14	Derrick.

CATAHOULA PARISH

Lochnager Pet. Co.'s No. 1 Taliaferro, 572 ft. E, 396 ft. S, C, Sec. 26-9-6	S.D. 900 ft.

CLAIBORNE PARISH

Nesbit et als' No. 1 Mosley, 330 ft. S, 330 ft. E, NW cor., Sec. 29-20-5	Reaming to bottom; T.D. 2,580 ft.
El Dorado Chief Oil Co.'s No. 1 Dance, C SW NE, Sec. 27-20-7	Drlg. shale and boulders 1,470 ft.

(Continued on Page 143)

LOUISIANA-ARKANSAS PROVEN AREAS

NORTH LOUISIANA

BOSSIER PARISH—CARTERVILLE

Company, farm and location—	Remarks:
Bahan & Bahan's No. 1 Kilgore, 1,310 ft. E, 675 ft. S. NW cor., Sec. 31-23-11	Completed as 37,700,000-ft. gas well at 3,062 ft. Apr. 27, 1928; arranging to deepen.
Delaware-Louisiana Dev. Co.'s No. 4 Bollinger, Sec. 33-23-11	Swbd. little mud and oil 3,150 ft., W.O.S.R.; T.D. 3,922 ft.

BOSSIER—BELLEVUE

H. L. Morgan et als' No. 1 Wetherbee, 200 ft. S, 200 ft. W, NE cor. SW SE, Sec. 21-19-11	Blew in estimated 4,000,000 ft. gas, S.W. and mud; killed and waiting on 6-in. to set at 1,834 ft; T.D. 1,854 ft.

BOSSIER—ELM GROVE

Jones Chemical Co.'s No. 3 fee, 400 ft. N, 400 ft. W, SE cor. NW NE, Sec. 32-16-11	Location.
J. F. Palmer's No. 4 McCann, Sec. 31-16-11	S.D. 1,910 ft.
Palmer Corp.'s No. 13-B Hodges, 1,980 ft. W, 660 ft. N, SE cor., Sec. 25-16-12	Rigging up.
Palmer Corp.'s No. 1 Roscoe, 660 ft. S, 660 ft. E, NW cor. NE NW, Sec. 14-17-12	Drill stem test 990 ft; S.W.; drlg. chalk 1,440 ft.

CADDO PARISH—MOORINGSPORT

C. B. Moore's No. 1 Buckalew, 2,000 ft. N, 1,000 ft. W, SE cor., Sec. 30-20-15	Drlg. 1,217 ft.

CADDO PARISH—DIXIE

Gold & Sklar's No. 3 Hunter, 330 ft. N, 200 ft. E, SW cor. SW NE, Sec. 17-19-14	Derrick.
Gold & Sklar's No. 4 Hunter, 330 ft. N, 200 ft. W, SE cor. SW NE, Sec. 17-19-14	Location.
Gulf Ref. Co.'s No. 3 Hunter, 300 ft. S, 300 ft. W, NE cor., Sec. 17-19-14	Cmtd. 10-in. 102 ft; drlg. shale 3,260 ft.
Gulf Ref. Co.'s No. 5 Oden, Sec. 18-19-14	Reported abd. S.W. 2,454 ft. in error; plugged back to 2,425 ft.
Ohio Oil Co.'s No. 4 Hunter, 330 ft. N and W, SE cor. NW NE, Sec. 17-19-14	Derrick.

(Continued on Page 143)

3099 feet in thirty 24-hour days

without a single shut down

THAT was the experience of Mead Brothers, Inc., drilling contractors, with a rotary rig . . . 6-inch drill stem . . . powered by Waukesha. They used three of the first Waukesha Great Six Engines ever built . . . two for the drive of two 7¼ in. x 18 in. mud hogs and the third on the draw works.

Operating on natural gas, fuel consumption averaged 51,150 cu. ft. per 24-hour day . . . about one-fourth the fuel required by the usual steam outfit. This was so remarkably low that the field engineers, observing the test, questioned the gas meters and were satisfied only after installing accurately calibrated meters.

Two weeks after completing the first well, Mead Brothers sent in a repeat order for a second outfit of three Waukesha Great Six Engines. This *proved* engine can be adapted to *your* rotary rig. Write today to *Oil Industry Equipment Division, Waukesha Motor Company, Waukesha, Wisconsin. Offices: 8 W. 40th Street, New York City; C. F. Camp Co., Tulsa; Portable Rig Co., Houston; 7 Front Street, San Francisco.*

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WAUKESHA ENGINES

Hobbs Pool Runs Ahead of Jal District

Following Extension to Northwest, It Has Now Been Extended Mile to Southeast. Deeper Horizon on Frannie Dome, Wyoming

By Tolbert R. Ingram
Staff Correspondent, Rocky Mountain Area

DENVER, Colo., Sept. 16.—The Hobbs Pool in Lea County, New Mexico, continues to stretch out in both directions from the discovery well and was extended a mile to the southeast this week when Harry Walker and others' No. 1 Terry came in at 4,107-50 feet flowing 360 bbls. natural until it was shut in for storage. The Humble Oil & Refining Co.'s No. 1 Bowers, which extended the pool 3 miles to the northwest of the discovery, tested 132 bbls. in two hours after which the hole bridged. Cranfill & Reynolds' No. 1-B State in the San Simion district, pumped 575 bbls. in 16 hour. The Maljamar Oil & Gas Co.'s No. 2 Baish, in the Caprock area, has a flow of 5,000,000 feet of gas. The Continental Oil Co.'s No. 1 Flint, a mile to the northwest of the Texas Production Co.'s No. 1 Lynch, in the San Simion district, proved to be a failure and is being abandoned.

In Colorado, the Texas Production Co.'s gas discovery on the Bartram Dome in the Hiawatha district in northern Moffat County, increased its flow of gas to 36,700,000 feet upon being deepened, and in conjunction with a strike on the Wyoming side has resulted in important extensions of the Hiawatha gas field.

A deeper horizon on the Frannie Dome in Park County, Wyoming, was proven when the Midwest Refining Co.'s No. 36 Rosenberg came in as a 500-bbl. well in the Madison lime at 3,012 feet, being the best well so far completed on the structure and somewhat of a surprise. Another black oil pool in Park County appears to be in the making in T. N. Clark's No. 1, on the Spring Creek Dome, which has 2,000 feet of oil in the hole from the Embar-Tensleep series. The Praire Oil & Gas Co. is abandoning its Clark Dome test in Natrona County upon finding water in the Tensleep, and the Wyoming Associated has a 370-bbl. well in the Sundance in Salt Creek, Sweetwater County has several wells showing for gas producers and activity is on the increase in that area.

NEW MEXICO

Another extension of the Hobbs Pool in Lea County, southeastern New Mexico, this time a mile to the southeast of the discovery, is reported in Harry Walker and others' No. 1 Terry, NW SW SE Section 10-19-38. The pay was found at 4,107-50 feet, and the well started off flowing by heads. On Monday it was reported making 360 bbls. natural. It was then shut down to erect tankage. The distance from this well to the Humble Oil & Refining Co.'s No. 1 Bowers, C NE SE, Section 30-18-38, is approximately 4½ miles. No. 1 Terry appears to be running about 72 feet higher than the Midwest's discovery well. The trend of the pool as shown by the four wells so far drilled into the pay is northwest-southeast and the discoveries indicate it is running ahead of the Jal district as a real oil pool.

The Maljamar Oil & Gas Co.'s No. 2 Baish, NE cor. SW, Section 21-17-32, in the Caprock area east of the Eddy County line in Lea County, New Mexico, is showing up favorably and appears to be running several feet higher than any well so far drilled in that sector. At 3,106 feet it encountered gas, the flow being estimated at 5,000,000 feet. It is drilling ahead at 3,114 feet.

In the Hobbs area the Humble Oil & Refining Co.'s No. 1 Bowers, C NE SE, Section 30-18-38, three miles to the northwest of the Midwest's discovery well on this high, estimated good for 25 bbls. an hour at a total depth of 3,368 feet last week when the rig caught fire and was burned, appears to be a better well than at first indicated. The rig has been rebuilt but there is 2,600 feet of drill stem in the hole. It was tested for two hours and made 132 bbls. in that period when the hole bridged. The quality of this oil, which tested 42 degrees gravity, is especially interesting. The Midwest Refining Co.'s No. 24 Leach, SE NW, Section 15-19-38, 3 miles to the southwest of the discovery, is drilling 3,565 feet. It had considerable gas at 3,055 feet and a show of oil at 2,990-95 feet. The Ohio Oil Co.'s No. 1 State, SE SW, Section 9-19-38, is drilling at 3,140 feet. The top of the brown lime was encountered in this well at 2,950 feet. The Shell Petroleum Corp.'s No. 1 Terry, SW NE, Section 22-19-38, cemented the 12½-inch at 1,567 feet and is waiting.

San Simion District

In the San Simion district, Cranfill & Reynolds' No. 1-B State, NE cor., Section 2-21-33, three-fourths of a mile southeast of the Texas Production Co.'s No. 1 Lynch, the discovery well in this district, is rated as a 650-bbl. well at a total depth of 3,755 feet. It is on the pump and has been averaging 575 bbls. every 16 hours through 2,100 feet of 4-inch tubing, pumping nine revolutions per minute. This company's No. 2-B State, NW NE NE, Section 2-21-33, one location to the west of No. 1-B, is digging cellar. It is probable that No. 3-B, another offset, will be started at once. The Continental (Marland) Oil Co.'s No. 1 Flint, SE cor., Section 28-20-34, one mile to the northwest of No. 1 Lynch, is being abandoned at a total depth of 3,750 feet. It had a show of oil at 3,580-90 feet and another at 3,700-15 feet. It made only one bailer of oil after a shot. C. E. Reynolds and others' No. 1 Merchant, SE cor. NE, Section 15-22-34, is drilling at 1,660 feet, and the Empire Gas & Fuel Co.'s No. 3-B State, SW NE SE, Section 5-21-35, is drilling at 750 feet in red rock.

In the Jal district, the Midwest Refining Co.'s No. 22 Gregory, SE SW, Section 31-25-37, 2 miles southeast of Skelly's No. 1 Joyner, is bottomed at 3,320 feet in brown lime. It had 2,600 feet of fluid in the hole of which 2,000 feet was oil and 600 feet water and mud. In a test it swabbed 67 bbls. in 11 hours and the oil did not come in fast enough to make it look commercial. It was making around 8,000,000 feet of gas. The Gypsy Oil Co.'s No. 1 Humphreys, NW cor. SW, Section 25-25-36, which is being plugged to abandon, was cemented at 3,306 feet and made 40 bbls. of fluid daily of which 20 to 30 bbls. was oil. The Humble Oil & Refining Co.'s No. 1 Lindley, C SE SE, Section 14-25-36, cemented the 8⅝-inch at 2,974 feet in anhydrite. The base of the salt was at 2,925 feet and the top of the lime at 2,963 feet. The Magnolia Petroleum Co.'s No. 1 Lindley, SE cor. NE, Section 26-25-36, is bottomed at 2,961 feet in lime and is swedging the 10-inch at 2,160 feet. The Gypsy Oil Co.'s No. 1 Mattern, SW cor. SE, Section 24-21-36, Eunice district, is drilling at 3,836 feet in hard lime and is still spraying oil from the horizon at 3,735 feet and making 8,000,000 feet of gas. Buel & Hagen's No 1 State, C NE, Section 33-11-35, Tatum district, is drilling at 2,960 feet in red beds and anhydrite, and the Texas & Pacific Coal & Oil Co.'s No. 2 State, NW cor. SW, Section 21-23-36, Ochoa district, is in white lime at 3,546 feet and coring.

Eddy County

The number of drilling wells in Eddy County has shown a decrease following the recent completions and in the absence of any new wells starting. The Grayburg Oil Co.'s No. 2 Keely, C SE NE, Section 24-27-29, West Maljamar district is drilling at 560 feet. It topped the salt at 402 feet, or 40 feet higher than it was found in its No. 2 Burch, one-fourth of a mile to the southeast. Etz Brothers' No. 1 Etz, C SE SE, Section 13-16-30, is drilling at 1,275 feet, and Maxmillian Freiss' No. 1, NW NE SW, Section 19-17-31, was abandoned after drilling below 500 feet, this being a validation hole.

In Roosevelt County, Sloan & Smith's No. 1 Lovern, C SE, Section 4-3s-35, is shut down at 4,510 feet, the contract depth having been reached.

In San Juan County, the San Juan Leasehold Co.'s No. 3 Bowman, Section 30-30-15, Meadows district, is shut down at 2,500 feet with the 5⅞-inch cemented at 2,430 feet. The Great Mesa Oil Co.'s No. 1 Roderick, SW SW, Section 11-22-14, Stoney Butte, is moving supplies to the well to resume. Hole is bottomed at around 700 feet and waiting for casing which is on the way.

In Valencia County, the Acme Development Co.'s No. 1 Santa Fe railway, SW NW, Section 27-7n-4w, is bottomed in lime at 4,005 feet and underreaming the 6⅝-inch at 3,860 feet to make a water shutoff. In McKinley County, H. L. Williams' No. 1 Santa Fe, Section 19-18-8, Hospah district, is drilling at 975 feet with the 15½-inch at 870 feet. The Starr Oil Co.'s No. 1 Adams, NE cor., Section 25-17-17, Chappelle area, San Miguel County, is drilling at 2,520 feet in lime, and H. L. Williams, and others' No. 1 Staplin, NE cor., Section

(Continued on Page 147)

NEW PRODUCTION RECORD MADE IN TURNER VALLEY DURING AUGUST

By Victor Lauriston
Staff Correspondent, Canadian Fields

CHATHAM, Ontario, Sept. 14.—In August the Turner Valley Field established a new production record of 97,053 bbls., as against 91,840 in July and 92,123 in June, the previous high month in the history of the field. The increase was partly due to the coming in, toward the end of the month, of Home Oil Co.'s No. 3, and partly to increased production in a number of the older wells. Okalta Oils' No. 1 showed an increase of 1,000 bbls. On the other hand, Royalite Oil Co.'s No. 4, the first deep lime producer and for many years the largest well in the field, showed a further decline in production of 3,484 bbls.

Home Oil Co.'s No. 3, heralded when it came in as a potential 1,000-bbl. producer, was in partial production from August 21, making around 425 bbls. a day. It will do much better on steady production.

Detailed production figures for the various wells are as follows:

Crude Naphtha Deliveries to Imperial Oil, Ltd.		
Well—	Production for month	Daily Average
Royallte's No. 4	7,901	255
Royallte's No. 7	2,801	90
Royallte's No. 8	5,309	171
Royallte's No. 9	675	22
Royallte's No. 13	121	4
Royallte's No. 14	454	14
Royallte's No. 17	6,954	224
Royallte's No. 18	3,814	123
Home's No. 1	19,707	636
Home's No. 2	12,162	392
Home's No. 3 (partial)	4,268	426
Dalhousie's No. 1	2,844	92
Dalhousie's No. 6	394	13
Regent's No. 1	2,056	66
Illinois-Alberta's No. 1	1,698	55
Light Crude Deliveries to Imperial Oil, Ltd.		
Royallte's No. 11	77	2
Royallte's No. 15	161	5
Royallte's No. 20	899	29
Royallte's No. 21	571	18
Dalhousie's No. 5	1,326	43
Home's No. 1	125	4
Home's No. 2	629	20
Home's No. 3	1,212	39
Home's No. 4	84	3
Foothills' No. 1	3,512	113
Foothills' No. 2	625	10
Okalta's No. 1	9,662	312
All Deliveries, Regal Oil Refineries		
New McDougall Segur No. 2	1,812	59
McLeod wells	2,748	89
Spooners' Nos. 1 and 2	1,851	60
United Oils' No. 4	431	14
Vulcan Oils' No. 1	196	6

The figures show total deliveries to Imperial Oil, Ltd., during the month of 71,131 bbls. of crude naphtha and 18,884 bbls. of light crude oil; and total deliveries to Regal Oil Refineries of 7,038 bbls.

Decline in production of Royalite Oil Co.'s No. 4 gusher, which at one time reached a peak over 600 bbls. a day, is reported largely due to freezing, which had not previously affected the well, and which has since been overcome. The well is reported to have come back to normal production. The actual capacity of Home's No. 3, LSD 14, Section 20-19-2w5, is still undetermined; but it is generally rated around 700 bbls.

Possible Extension South

Sterling-Pacific Oil Co.'s No. 1, LSD 15, Section 33-18-2w5, is reported drilling in the Home sand at 3,574 feet, which was entered at 3,450 feet. This is some 1,000 feet shallower than in the Home wells; and if the test logs the same as the latter it should get the lime around 4,300 feet. Sterling-Pacific's No. 1 is near the extreme south of the Turner Valley Field and proves the structure a considerable distance south of the Home producers. If the lime is found productive at this point it will extend the field several miles to the south. Imperial Oil, Ltd., is handling the drilling.

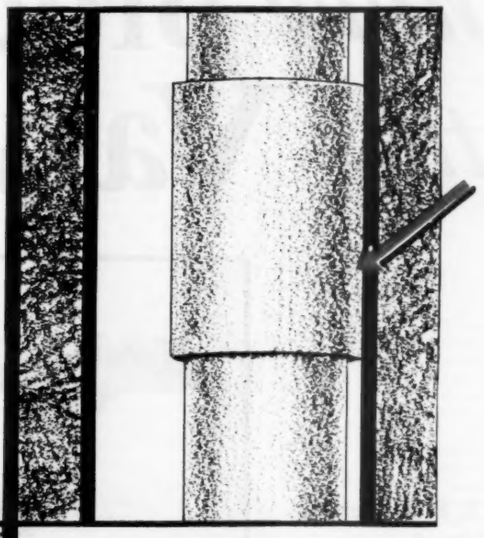
Advance Oil Co.'s No. 6, LSD 16, Section 19-19-2w5, is rigging up with rotary outfit.

In central area, Royalite Oil Co.'s No. 6, LSD 16, Section 31-19-2w5, is swedging 4-inch casing at 4,531 feet. Royalite's No. 12, LSD 3, Section 13-20-3w5, is at 5,222 feet and running 6¼-inch casing. Royalite's No. 16, LSD 2, Section 12-20-3w5, is down 5,060 feet, and sidetracking at 5,003. Royalite's No 19, LSD 5, Section 6-20-2w5, is sidetracking at 4,623 feet. Royalite's No. 21, LSD 1, Section 13-20-3w5, is cleaning out at 4,436 feet. Royalite's No. 23, LSD 13, Section 31-19-2w5, is drilling at 4,551.

Shareholders of Royalite Oil Co. at a recent meeting ratified the proposal of the directors to increase the capital stock from 400,000 to 500,000 no par shares, the new stock to be sold to present shareholders on a 1-to-4 ratio at a price of $30 per share. Imperial Oil, Ltd., which holds the larger part of the Royalite stock, will take its entire allotment. The $3,000,000 new capital will be used to

(Continued on Page 139)

WHY TOLERATE FRICTION?



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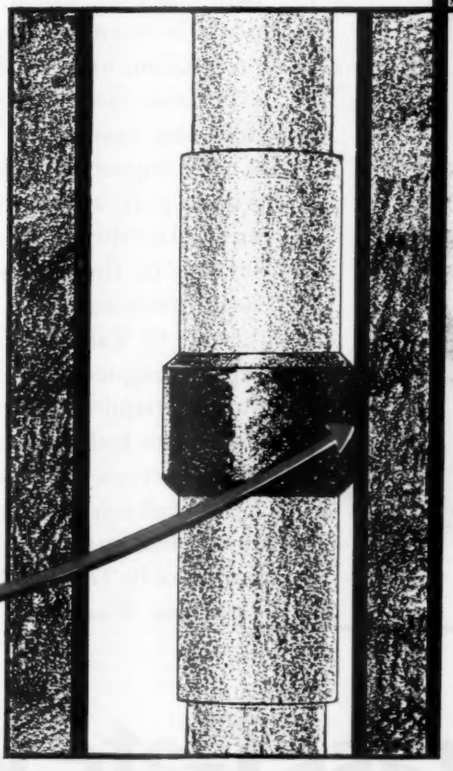

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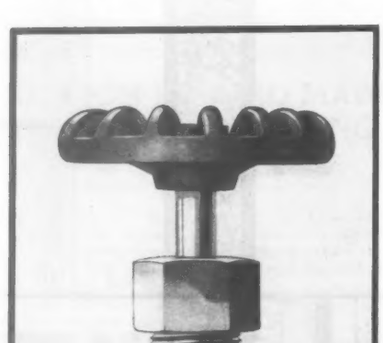

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Mercer County, Ohio, Well Promising

Thirty-Four Completions in Central Ohio Area. Dupo Field, St. Clair County, Illinois, Has 50 Strings at Work

By Whit
Staff Correspondent, Central West Fields

FINDLAY, Ohio, Sept. 14.—The most important find in the old Lima Field of northwestern Ohio was A. Lauber's test in the northwest corner of the Frank Burns farm, on the oil map as the Henry Vogle farm, in the SW Section 21, Butler Township, Mercer County, the well producing 20 bbls initial from the Trenton formation at 1,171 feet. This well is sufficiently large to induce further work in that area.

W. H. Allman, trustee, drilled a test 600 feet from the north line and 200 feet from the east line of the V. H. Kelley farm, on the oil map as the V. Shale farm, in the NW Section 32, Jackson Township, Sandusky County, which was dry at a total depth of 1,347 feet. Top of the sand was found at 1,260 feet and then drilled 127 feet into the Trenton.

Ridge Gas & Oil Syndicate's No. 3 well, 800 feet from the south line and 450 feet from the west line of the Elnore Cross farm, on the old oil map as the G. A. Criger farm, in the NW Section 35, Biglick Township, Hancock County, produced 15 bbls. initial at 1,481 feet. Trenton was topped at 1,404 feet and drilled 77 feet in the sand. Mack P. Colt, Lima, Ohio, drilled a test 1,000 feet from the south line and 800 feet from the west line of the C. Mozelman farm, in the NE Section 11, Noble Township, Auglaize County, getting only a 2-bbl. pumper at 1,185 feet. Top of the sand was found at 1,130 feet and drilled 55 feet into the sand.

In the Tiffin Field, Liberty Township, Seneca County, W. J. Poyser and others' No. 1 in the northeast corner of the Homer Martin farm, mapped as the T. Leis farm, in the NE Section 36, produced 200,000 feet of gas at 111 feet into the Trenton at a total depth of 1,515 feet. Van Tassell and others' test in the southwest corner of the A. B. Micheals, SE Section 6, Clinton Township, produced 210,000 feet of gas from the Clinton sand at 1,565 feet, or 87 feet in the lime formation. The well drilling by Mason Brothers and others on the E. G. Brosius farm, Section 6, Clinton Township, shows for a dry hole.

CENTRAL OHIO

Thirty-four completions were reported from the Central Ohio fields since the last week's review. Of these 11 were producers with an initial production of 193 bbls., 13 dry holes and 10 gas wells. During the period 17 new locations were made for new wells and 32 started drilling, a total addition of 49 in new work.

In Ashland County, Orange Township, the Ohio Fuel Gas Co. has a fairly good gas well in No. 1-4,729 on the Welling Graven farm, Sections 21 and 22, the gas being found in the Newburg sand, which lies above the Clinton. Same company is drilling No. 1-4,797 on the Esther Murray Irwin farm, Section 28, same township. In Lake Township, the same company's No. 1-4,808 on the Ellis A. Morris, Sections 3 and 4, pumped an initial of 8 bbls. from the Berea sand at from 505-92 feet. Curtis and others' No. 3 on the A. C. Metcalf, Section 22, is only a very light gas well at from 560-85 feet. Shetler and Shetler's No. 1 on the Township lot, Section 10, looks very discouraging at a depth of from 570-90 feet, as the showing is very light of either oil or gas. Mohican Oil & Gas Co. has a dry hole in No. 5 on the B. B. Chesrown, Section 3, same township, at 632 feet. Davis and others are drilling No. 3 L. O. Chesrown, same section. Robinson and others are drilling No. 2 Philip Shaffer, Section 16, and No. 4 on the G. M. Heffelfinger, Section 9, same township. The Kemrow Co. got a dry hole on the Joe E. Gast, Section 5, Montgomery Township, as no sand was found. Same company made a location on the J. R. and L. Brown farm, Section 6. Garn-Woodward Oil Co. is drilling No. 2 on the F. B. and G. R. Shaner farm, Section 33, Perry Township. The Kemrow Co. found a duster on the H. P. Fisher farm, in Lots 76 and 77, Sullivan Township.

Medina County

In Medina County, Westfield Township, the Ohio Fuel Gas Co.'s No. 1-4,769 on the F. E. McCracken farm, Section 20, failed to find any pay sand and goes as a dry hole. Harmon and George have a dry hole on the Emeline Hogans farm, Section 1, Harrisville Township, same county, at from 2,828-32 feet.

In Lorain County, Carlisle Township, the Wiser Oil Co. found an unusually large gas well in a second attempt on the J. C. Palmer farm, Lot 14, at a depth from 2,350-64 feet. Ohio Fuel Gas Co. drilled a dry hole in No. 1-4,761 on the John B. Cowley farm, Lot 1, Eaton Township, same county.

Wayne County reports two wells, one a gasser and the other a duster. In Congress Township, the Ohio Fuel Gas Co.'s No. 1-3,626 on the Jasper Vickers farm, Section 6, is a very fair gas producer. Same company made a location on the J. H. Wiley, Section 12, and is drilling No. 1-4,814 on the Jennie C. Stair, Section 18, and Harmon and George are drilling on the John A. Martin, Section 31, and Barnhart and others are working at No. 2 on the John Keim, Section 5, also in Congress Township. In Chester Township, B. Slagel drilled a dry hole in No. 2 on the M. G. Ruff, Section 35. This well showed about one-half barrel at 484-99 feet, but not worth tubing and pumping. Slagel is also drilling on the Muril Fusey farm, Section 36, and the Ohio Fuel Gas Co. made a location on the C. W. Koffman, Section 12. Murphy Brothers are drilling No. 3 on the Ada and George Ryall, Section 32, Wooster Township.

In Holmes County, Hardy Township, the East Ohio Gas Co.'s No. 1 J. and F. Pyers farm, Lot 18, is reported good for 35 bbls., the oil being found 2,414 and 3,426 feet and between 3,448 and 3,473 feet. Same company is drilling on the Miller Achmire farm, Lot 14, and the Preston Oil Co. made a location for No. 2 on the Phillip Collier farm, Lot 19. In Monroe Township, the Preston Oil Co.'s No. 2-1,324 on the Lizzie Rambacker farm, Lot 16, is reported to have pumped 41 bbls. the first 24 hours at 3,439-68 feet. In Richland Township, the Ohio Fuel Gas Co. has an average gas well in No. 1-3,589 on the White & Williams farm, Lot 24. East Ohio Gas Co. is drilling No. 3 on the A. E. Harford farm, Lot 14, and made locations for tests on the Bertha E. Johnson farm, Section 4, and for No. 1 on the C. B. Brown farm, Section 7, same township.

Coshocton County

In Coshocton County, Clark Township, the Ohio Oil Co. has started the drill at No. 3 on the Frank Mullett farm, and is drilling No. 3 Robert Rhode, and No. 15 Daniel Fair farm, both in Section 6, same township. Ohio Fuel Gas Co. is drilling on the D. and L. Rine farm, Section 4, Pike Township.

In Summitt County, Copley Township, the Ohio Fuel Gas Co.'s No 1-3,617 on the Rebecca Bolish farm, Section 12, is a light gas well. F. A. Brendall and others are drilling No. 1 Grace D. Merwin farm, Section 13, Franklin Township, and Cameron and others are working on the Catherine Mesener farm, Section 25, same township. In Greene Township, same county, F. A. Brendall and others made location for No. 1 A. Wise farm, Section 16, and No. 1 on the Frank Selzer farm, Section 7, and drilling No. 1 C. Kerr farm, Section 18. Same company has a fair gas showing in No. 1 William Ritter farm, Section 18, same township, in the Newburg sand, but going to the lower pay sand.

In Licking County, Fallsburg Township, the Wittmer Properties, trustee, drilled a dry hole on the U. G. Porter farm, Section 8, at 2,755-3,015 feet. Preston Oil Co.'s No. 2 on the Corkwell-Spencer farm, Section 14, Mary Ann Township, is reported good for 10 bbls. from the Berea sand at 790-800 feet. Hope Construction & Refining Co. is drilling No. 2 James Wright, Section 14, Perry Township. The Wehrle Co.'s test on the M. B. Willey farm, Section 14, Hanover Township, produced 20 bbls. from 2,688-2,728 feet. Hope Construction & Refining Co. is drilling No. 4 on the Charles O. Bannon farm, Section 16.

In Muskingum County, Hopwell Township, the Preston Oil Co. made a location for No. 2-1,359 on the J. W. Varner farm, Section 5, and the Ohio Fuel Gas Co. made a location on the O. R. Baum farm, Section 2, Perry Township.

Athens County

In Athens County, Amec Township, Charles Fox and others' No. 3 on the Robert Bean farm, Section 15, pumped 3 bbls. from the upper Cow Run sand at 110-26 feet, and is drilling No. 4, same farm. D. T. Orndorff is drilling on the Charles F. Wolfe farm, Section 25, and the Ohio Fuel Gas Co. made a location for No. 1-4,826 on the F. J. Beasley farm, fractional Section 12, all in Ames Township.

Ohio Fuel Gas Co. made a location for No. 1-4,922 on the W. W. Blackwood, fractional Section 7, Carthage Township. In Berne Township, same company has a light gas well in No. 2-4,786 on the W. A. Clester farm, Section 35, and made a location for No. 2-2,825 on the R. B. McKinley farm, same township. Same company is drilling No. 1-4,824 on the Elsa Enlow farm, Section 6, Lee Township. In Athens Township, J. W. Young, trustee, found a duster in No. 3 on the F. P. White farm, Section 14, in the lower Berea sand at 1,390-95 feet, total depth 1,406 feet. Fox & Mosure drilled a dry hole in No. 7 on the Robert Bean farm, Section 18, Cannon Township, in the first Cow Run sand at 109-11 feet. Watkins & Jones also found a dry hole on the Mary E. Kelley farm, Section 30, Alexander Township, in the upper Berea sand at 1,216-30 feet. Ohio Fuel Gas Co. is drilling No. 1-4,819 on the Henry A. Hatch farm, Sections 1 and 31, Rome Township.

In Meigs County, Sutton Township, Hazlett and others' test on the Bell Spencer farm, Section 11, pumped 20 bbls. initial after shot from the upper Cow Run sand from 631-48 feet, total depth 654 feet. Tyree and others' No. 13 on the William Carnahan farm, same section, produced an initial of 10 bbls. in the same formation at 646-71 feet. Same firm is drilling Nos. 6 and 7 on the Mary Jividen farm, in Sections 24 and 23. Rood & Palmer are drilling No. 2 on the C. C. Hill farm, Section 12, and the Preston Oil Co. is drilling No. 3-1,347 on the Nial Salser farm, Section 24, same township. In Scipo Township, H. W. McTaggert's No. 7 Lydia Rowley farm, is only a very small gas well on the lower Cow Run at 680-90 feet. In Bedford Township, the Ohio Fuel Gas Co. has an average gas well in No. 1-4,799 on the Edith Whaley farm, and one of the same kind in No. 1-2,805 which also is good for 1 bbl. of oil, on the William Hunter farm, fractional Section 18. Same company made a location for No. 1-4,831 on the S. and M. Atkinson farm, Section 26.

Vinton County

In Vinton County, Elk Township, the Ohio Fuel Gas Co.'s No. 1-4,737 on the R. M. Herrold farm, Section 3, is reported dry in the Clinton lime from 2,782-2,804 feet, total depth 2,847 feet. Same company made a location for No. 1-3,574 on the Addie Vickers farm, Section 2, Eagle Township. Same company made a location on the Ellen McQuade farm, Section 35, Swan Township, same county.

In Lawrence County, Elizabeth Township, the Ohio-Kentucky Gas Co.'s test on the William Jeffries farm, Section 30, is reported a failure at a depth of over 276 feet in the lime at 2,600 feet.

In Stark County, Lawrence Township, the Penn Oil & Gas Co. is drilling on the Christ Luther farm, Section 3.

In Fairfield County, Rush Creek Township, the Hope Construction & Refining Co. went into the Trenton rock at a total depth of 5,095 feet, where a heavy dose of salt water was found and it is listed as dry and is No. 4 on the Sam Block farm, Section 13.

In Guernsey County, Spencer Township, the Ohio Fuel Gas Co. has a light gas well in No. 1-4,136 on the Edgar Burlingame farm, Section 36. Top of the Berea sand was found at 1,327 feet and the light gas pay at 1,331-35 feet. Same company made a location for No. 1 on the Amanda E. Robinson farm, Section 11, Wheeling Township. J. T. Bebout has a hole full of salt water at a depth of 3,596 feet on the Josephine M. Sager farm, same section. In Cambridge Township, the Moore Oil Co.'s second test on the John T. Moore farm, Section 7, is reported at 20 bbls. initial. In this hole the top of the Niagara lime was found at 3,346 feet, and lime sand pay at 3,375-84 feet. Ohio Fuel Gas Co.'s No. 1-4,752 on the Fannie D. Brown farm, Section 2, same township, produced 25 bbls. initial; the top of the Niagara lime was found at 3,252 feet, top of lime sand at 3,382 feet and pay oil sand from 3,375-88 feet.

Delaware County

In Delaware County, Oxford Township, north of Columbus, the Lee Oil & Gas Co.'s wildcat on the H. J. Dennis farm failed to find any sand at 1,200 feet and reported dry. In Belmont County, Colerain Township, C. D. Crouch and others' No. 2 Thomas Starbuck farm, Section 7, was a dry hole. In this hole the top of the Berea was found at 1,986½ feet, water was encountered and the well was abandoned at 1,988 feet.

In Morgan County, Marion Township, W. C. McBride, Inc., drilled a light gas well in No. 4 on the Marion Mills farm, Section 26. The gas was found in the lower Berea sand at 1,509-27 feet, total depth 1,529 feet. Ohio Fuel Gas Co. is drilling No. 1-4,768 on the J. J. Worthington, Section 8. Bowman Oil & Gas Co. is drilling No. 2 C. Spurrier, Section 26, and Lord, Show and Dye are drilling No. 13 on the Alice A. Hollowell, Section 33. In Penn Township the Dover Oil Co. is drilling No. 32 on the R. E. Harkins farm, Section 34, Penn Township, and Sutton Brothers are drilling No. 18 J. and E. L. Heskett, Section 2. Ohio Fuel Gas Co. is drilling No. 1-4,818 on the W. P. Chappelear farm, Section 26, Malta Township, and Hoffman and others are drilling No. 4 Austin Newburn, Section 6, Homer Township.

INDIANA

Little was accomplished by the drill

(Continued on Page 175)

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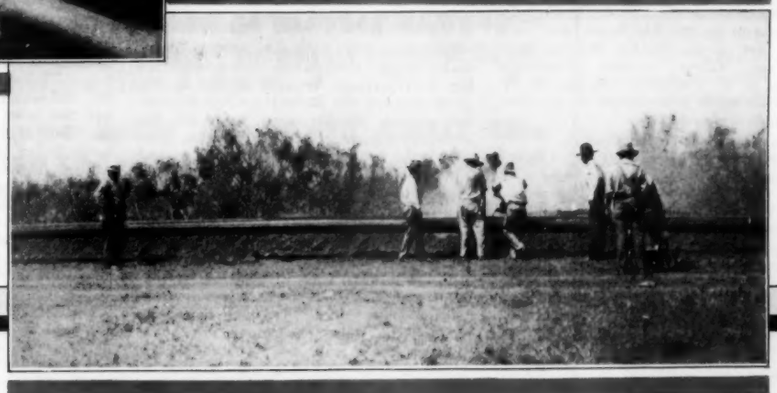

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Perry County Has 400 Bbl. Completion

Two Other Wells Good for Over 55 Bbls. West Virginia Gets a Gasser Good for 4,500,000 Feet in Mingo County

By D. S. Wakenight
Staff Correspondent, Eastern Fields

PITTSBURGH, Pa., Sept. 16.—For the first time in many months, the deep sand territory in Southeast Ohio has completed the nearest approach to a gusher since the first of the year. These occasional good wells act as a stimulus and inspire hope for others.

In the NE of Section 4, Harrison Township, Perry County, McClay Brothers and others completed a test on the Karl Brown farm. It had an initial production of 400 bbls. the first 24 hours after shot in the Clinton sand. The well does not open any new territory and is located in a section that has been completing some good wells.

In the same section, H. A. Atha & Co. completed a test on the Prudence Larezellere farm that produced 60 bbls. the first 24 hours. In Section 34, Coal Township, Perry County, the Chartiers Oil Co. completed No. 212 on the Hocking Valley Products Co.'s property. It produced 55 bbls. the first 24 hours. The West Virginia and Southwest Pennsylvania Fields completed nothing better than light pumpers.

WEST VIRGINIA

On Breden Creek, Harvey district, Mingo County, the Public Gas Corp. drilled its No. 6 on the Logan Cannel Coal Co.'s property 229 feet deeper, to a total depth of 919 feet. It is a gasser in the Maxon sand good for 4,500,000 feet.

In Grant district, Cabell County, the Harshbarger Oil & Gas Co. has a gasser in the Berea grit on the Wesley Meadows farm. In Washington district, Boone County, the Owens Bottle & Machine Co. has a Berea grit gasser on the J. D. Powell farm. In Troy district, Gilmer County, C. M. Bennett & Co. have a gasser in the Big Injun sand at a second test on the Allen Burton farm. In the same district the Mudlich Oil & Gas Co. has a gasser in the Big Injun sand at a second test on the Clinton Burton farm. In New Milton district, Doddridge County, J. E. Trainer's test on the W. E. Sutton farm is a duster in the Gordon sand.

Gasser in Tyler County

In Ellsworth district, Tyler County, the Oakland Oil & Gas Co. has completed in the Maxon sand a test on the C. A. Watkins farm. It is a gasser good for 1,000,000 feet. In Central district, Doddridge County, the Philadelphia Oil Co.'s test on the John Mulligan farm is a 2-bbl. pumper in the Big Injun sand.

On the head waters of Wiley Fork, branch of North Fork of Fishing Creek, Grant district, Wetzel County, the Carnegie Natural Gas Co. completed in the Salt sand No. 7 on the W. H. Furbee farm. It is a good gas well in the formation named.

On Mayberry Run, Murphy district, Ritchie County, the Daniel O'Day estate and others cleaned out and shot their No. 1 on the Jane Kirby farm. It was an old gasser and is now reported good for 13 bbls.

On the head waters of Rush Fork of Green Creek, Walton district, Roane County, the United Fuel Gas Co. has drilled No. 1 on the S. L. Taylor farm 20 feet deeper into the Big Injun sand and it is a 3-bbl. pumper. The location is 1,000 feet southeast of the same company's test on the G. A. Cummings farm.

Roane County

In Geary district, Roane County, the South Penn Oil Co. completed in the Big Injun sand No. 97 on the O. D. Stockly farm. It is a 20-bbl. producer. In Reedy district, Roane County, the Hope Construction & Refining Co.'s No. 1,118 on the M. Miller farm is dry in the Berea grit.

In Center district, Calhoun County, the Gerwig Oil & Gas Co. has a gasser at No. 14 on the M. Hardman farm. In the same district, Snodgrass & Co. have a gasser in the Big Injun sand on the Sturms-Jackson farm. In DeKalb district, Gilmer County, the Philadelphia Natural Gas Co. has a duster in the Big Injun sand at No. 7,558 on the Samuel E. West farm.

On Green Run, Murphy district, Ritchie County, U. G. Frederick and others completed a test on the L. W. Emery farm. It is a duster in the Big Injun sand. On Dutchman Run, same district, the Southern Oil Co. drilled down an old well, No. 5 on the A. Braden farm. It was formerly a light oil producer in the Salt sand and is now a light gasser in the Big Injun sand.

About 1½ miles southwest of Hartley station, Burning Springs district, Wirt County, R. C. Waggoner & Co. completed in the Salt sand a light gas well on the William Lieving farm. In Jefferson district, Lincoln County, the United Fuel Gas Co. completed in the Berea grit No. 2,528 on the Horse Creek Land & Mining Co.'s tract. It is a gasser. In Jefferson and Carroll districts, this company is drilling five wells and has four rigs up.

In Chapmanville district, Logan County, the Weidman Oil Co. has a gasser in the Salt sand at a test on the Merrell Coal Co.'s property. In Center district, Calhoun County, the Hope Natural Gas Co. has a gasser in the Big Injun sand at No. 7,417 on the G. W. Hardman farm.

Gilmer County

In DeKalb district, Gilmer County, the Hope Natural Gas Co. has drilled deeper its old No. 675 on the Lee Gainer farm. It is a gasser in the Big Injun sand. In Mannington district, Marion County, Monroe & Laughlin have drilled a test on the Mary Stiles farm into the top of the 30-foot sand and showing some oil and gas.

In Liberty district, Marshall County, the Electric Light & Heat Co. has a gasser in the 50-foot sand at No. 233 on the J. A. Bowles farm. In Union district, Harrison County, Lynn S. Horner has a gasser in the Fifth sand at a test on the Lon McGahan farm.

In Lee district, Calhoun County, the South Penn Oil Co. completed a test on the J. D. Bartrug farm. It is a 10-bbl. pumper.

In Sheridan district, Calhoun County, W. S. Dailey & Son completed a test on the H. J. Jones farm. It is a duster in the Big Injun sand. In Center district, the Hope Natural Gas Co. has a 10-bbl. pumper in the Maxon sand on the Hagan Barr farm.

In Big Sandy district, Kanawha County, the United Fuel Gas Co.'s No. 2,551 on the King Land Co.'s property is a gasser in the Weir sand. In Elk district, the Virginian Gasoline & Oil Co. has a 12-bbl. pumper in the Squaw sand at No. 19 on the J. F. Brawn 500 acres. In Big Sandy district, the Buff Lick Oil & Gas Co. has a rig up on the Rebecca J. Young 3-acre lot.

Starting Tests

In Mannington district, Marion County, the Carnegie Natural Gas Co. is placing drilling material at a location on the Wells-Glover farm. In the same district, Sutton Brothers have started to drill on the Sutton Brothers' farm. In Glenville district, Gilmer County, the Pittsburgh & West Virginia Gas Co. has rigged up on the J. M. Matheny farm. In the same district the same company is rigging up on the Allen Miller farm. In Southwest district, Doddridge County, the same company has started to drill on the John W. Wolfe farm. In Troy district, Gilmer County, the Carnegie Natural Gas Co. is rigging up on the J. M. Matheny farm. In the same locality the Hope Natural Gas Co. is building a rig on the A. L. Rymer farm. C. M. Nennett & Co. are building a rig on the Howard Keister farm.

In Washington district, Boone County, the Owens Bottle & Machine Co. has rigs up on the E. L. Barker and F. T. Miller farms. In Grant district, Ritchie County, Moyers, Lee & Co. are starting on S. T. T. McFarlan farm. In McKim district, Pleasants County, Sud Powell & Co. have made a location on the J. N. and Ida Shilling farm. In Spencer district, Roane County, Jeff Miller & Co. have part of the rig material at a location on the E. D. Outright farm. In Reedy district, Wirt County, Ray Evans & Co. is rigging up on the L. L. Courtney farm. In Sherman district, Calhoun County, G. L. Cabot has made locations on the F. F. Barr, S. A. Hays and Laura V. Ash farms. In Center district, Gilmer County, the Carnegie Gas Co. has shut down on the D. Stout farm. In DeKalb district, C. B. Lewis & Co. are rigging up on the Clyde Adams farm.

Wetzel County

In Clay district, Wetzel County, the Pittsburgh & West Virginia Gas Co. is due in the sand on the John J. Ferrell farm. In Cameron district, Marshall County, G. B. & A. C. Patterson are due in the sand on the Ernest Lindsey farm. In McClellan district, Doddridge County, the Conservative Gas Co. has rig material on the Dora McDonald farm. In the same district, the Little Five Oil Co. has a rig up on the Samuel Garner farm. In Coal Township, Harrison County, the Washington Gas Co. has shut down at 2,374 feet on the E. D. Titro farm.

Marion County

In some districts there is still some test work starting. In Mannington district, Marion County, Sutton Brothers have spudded in a test on their own farm. In Church district, Wetzel County, the Delmar Oil Co. has started to drill on the Anna Palmer farm. In Geary district, Roane County, the United Carbon Co. has made a location on the Preston Helmick farm. In the same district, the Simmons Oil & Gas Co. is rigging up on the Everet Wilson farm. In Geary and Walton district, the United Fuel Gas Co. is rigging up on the D. K. Littlepage and M. J. and R. Ogden farm.

In Ravenwood district, Jackson County, H. C. Zogg has part of the rig material at a location on the George A. Delaney farm. In Ripley district, the Parsons Oil & Gas Co. is due in the sand on the F. E. Starcher farm. In Sherman district, Calhoun County, Godfrey L. Cabot has made two locations on the L. V. Ash farm. In Lee district, F. F. McIntosh is drilling on the W. W. Sapp farm. In Center district, L. P. Bickel

(Continued on Page 176)

BARNETT'S CREEK MOST ATTRACTIVE AREA IN WESTERN KENTUCKY FIELD

By Whit
Staff Correspondent, Kentucky-Tennessee

OWENSBORO, Ky., Sept. 14.—The most attractive area of western Kentucky at this time is centered around the big well recently brought in by R. W. McMahan, on the Barnett's Creek Church lot, almost directly west from the big production on the Bartlett, Trodgen, Kirk and Duke farms, southwest of Taffey and southeast of the big producers on the Morgan and other adjoining farms. The Church lot well was reported good for 150 bbls., but since then three wells in the immediate vicinity just brought in are reported showing for 400 bbls. each. This may be a little high, but advice is that they are among the big wells in that part of Ohio County. Oil men are of the opinion that this new Church lot find is to open up a very rich producing area. Hupp & Duff started a well as soon as the good well on the Church lot was completed and completed the offset in 72 hours, rated as 400 bbls. The Hupp well is being drilled on the Mason-Bartlett farm. Then came the well on the Cicero Wade farm drilled by the Cumberland Petroleum Co. a short distance from the Church lot well, which is reported as good as the Hupp-Duff well. The Wade farm well showed 38 feet of rich sand, with no gas behind it, and it was difficult to furnish facilities to take care of the oil pouring out of the hole. Just across the fence on the other side of the Church from Hupp & Duff's well, Rex-Pyramid Oil Co.'s No. 2 on the Sallie Hoover farm came in showing as good as any of the wells in the Church lot area. In this new area, and for a few miles around it, a large number of new wells are to be started at once, which will make it the most active development since the opening of the Ambrose-Weller Pool a few miles to the northwest. McMahan, the discoverer of the Church lot well, has two more locations to drill upon, as the Church lot is a long narrow strip of land. When the two additional wells are drilled, drilling on the Church property will be done, and the offset locations will be far enough apart that they will not interfere with one another. The race will be merely to offset as quickly as possible and save all the oil from draining from under the holding through the Church lot well.

Scarcity of water for drilling purposes has held up work to a large extent in all parts of the western Kentucky counties, but a good heavy rain at the close of the week will be big help to the contractors.

Week's Work

A summary of the week's work in Kentucky shows 27 completions, 21 producers with an initial production of 2,434 bbls., 6 dry holes and no gas wells.

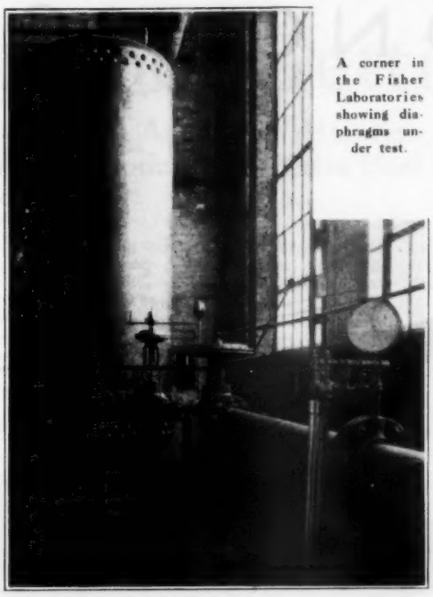
County—	Oil wells Comp.		Prod.	Dry
Ohio	13	11	1,525	2
Daviess	6	4	398	2
Muhlenburg	2	2	400	0
Henderson	2	1	75	1
McLean	2	2	35	0
Warren	1	1	1	0
LaRue	1	0	0	1
Total	27	21	2,434	6

Ohio County Wells

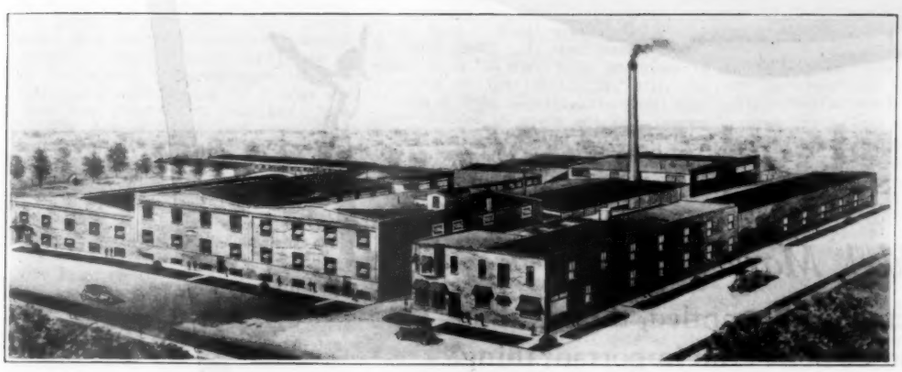
In the Bartlett-Morgan Pool, Hupp & Duff's No. 1 on the Mason-Bartlett farm and an offset to the Barnett's Creek

(Continued on Page 136)

A Manufacturing Plant That Is Two Laboratories



A corner in the Fisher Laboratories showing diaphragms under test.



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Stocks in All Principal Fields

Rowan and Tong Pool Getting Play

This Area With Taylor-Link Pool Attracting Attention of West Texas Operators. Big Producer for Yates Pool

By L. E. Bredberg
Fort Worth Bureau, The Oil and Gas Journal

FORT WORTH, Texas, Sept. 16.—West Texas interest followed along the "high" from the north end of Winkler County in the Llano Pool, which was extended 2 miles southeast, down through Ward County, where the Penn and Atlantic Oil Producing Co.'s wildcat is promising a new pool, into Pecos County, where the Pecos Valley Pool, in the northern end of the county, chalked up another small well, and down to the Rowan and Tong and Taylor-Link Pools, the most interesting areas in the Permian Basin for the past six weeks.

The two latter pools have been marked by the staking of many locations, changing hands of exceedingly high priced leases, and the rather peculiar actions of several of the wells now producing in the latter pool. Consideration for considerable acreage around the Rowan and Tong and Independent well has been running around $1,000 and some of it much higher than this amount, most of the deals carrying part payment in cash and part in oil.

Rowan & Tong and Independent Oil Company's No. 1 McDonald, the discovery well of this new area, has been shut down for the past six days waiting for pipe line facilities, which will be about 20 days in reaching this area, for the Texas Pipe Line Company has just started work on its six-inch line to this area, and it will take around 20 days to complete it from McCamey to the well. The last gauge on this well, before shutting down, showed 915 barrels in 10 hours and 15 minutes, flowing.

Humble Completes Line

The Humble Pipe Line Company has completed its 6-inch line from McCamey to the Taylor-Link Pool and has connected with the producers in this pool, giving an impetus to the operators and companies now drilling, and probably bringing other companies and operators who own acreage in the pool, to test their acreage, and drill it up.

The Taylor-Link Oil Co.'s No. 2 University has not been showing up as well since it dropped from 1,285 bbls, initial production, in 20 hours, to only 465 bbls. in 24 hours, 22 per cent b. s. and water showing. The discovery well of this company also declined appreciably from 115 bbls., initial production to 45 bbls., so the company deepened from the former total depth of 1,613 feet to 1,635 feet. Due to striking considerable sulphur water at that depth it was plugged back to 1,626 feet and is now producing 50 bbls. daily, 1½ per cent water. The decline of these two wells, and the appearance of a decline in Shell Petroleum Corp.'s No. 1-C University, the best well in the pool, so far, has cast a rather ominous cloud over the pool. The Shell's well seems to be declining every day, and some believe that it will soon drop off to nothing. On Saturday, September 14, it flowed 435 bbls. through 3-inch tubing, and on the 15th it flowed only 383 bbls. It has sanded up twice and was cleaned out, and pinched down to keep from re-sanding. The gas has been decreasing rather rapidly, and no doubt the decline in the gas flow has considerable to do with the decline in the production of oil. The company has made a south offset, and one to the west of its No. 1-C in Section 31, Block 16, and is moving in on both of them, with machines.

The World Oil Co.'s No. 1 University in the NE of Section 31, Block 16, swabbed only 35 bbls. after standing 20 hours, from sandy lime at 1,395-1,405 feet and the company deepened it to 1,500 feet, where it is now shut down running 6⅝-inch casing. This is the easternmost well of the pool.

Rather Small Well

The World Oil Co. and Landreth Production Co.'s No. 1-B University in the NE of Section 13, Block 18, is a rather small well for the pool, averaging around 90 bbls. daily. Total depth is 1,613 feet, and the first gas and showing of oil was found at 1,540 feet with an increase in gas from 1,570-83 feet. Top of pay is 1,596, with an increase at 1,613 feet.

The Tidal Oil Co. abandoned its No. 3 University, located in the SE of Section 17, Block 20, approximately midway between the Taylor-Link and Rowan & Tong Pool. Total depth of this well is 1,877 feet. It was formerly shut down at 1,716 feet with intentions of plugging at that depth, but after the Rowan & Tong discovery, the Tidal company decided to carry the test deeper, hoping to pick up the Rowan & Tong pay, but this was futile, consequently the test was abandoned this week.

The Continental Oil Co. completed its No. 1 University in the NE of Section 10, Block 17, 4 miles SE of the Taylor-Link Pool, as a gasser at the total depth of 1,867 feet after it encountered 3,250,000 feet from 1,862-67 feet, and it increased at the aforementioned depth. This gas will probably be used in drilling other tests in the area.

Tower & McKenna's No. 1 University, in the SE corner of Section 3, a half mile north of the Continental gasser, picked up a show of oil and gas from 1,840-45 feet, and from 1,845-50 feet it made an estimated 800,000 feet of gas. But from 1,865-72 feet, two bailers of sulphur water per hour intruded, and the company is to plug back, and probably shoot. Total depth is 1,872 feet.

Big Producer for Yates

While these new areas of Pecos County were getting a strong play with unlimited attention; the Yates Pool, 20 miles east, "pulled a fast one," thereby drawing considerable comment to itself. The Mid-Kansas-Transcontinental Oil Co.'s No. 30-A Yates in the Yates Vacancy Strip is the new well in this pool which created so much excitement by coming in as the second best potential producer in Texas, being topped only by the Mid-Kansas & Transcontinental's No. 5-D Yates which was completed about a year ago. This new well was bottomed at 1,070 feet, where it encountered the big pay, and the first hour's gauge, with 240 pounds rock pressure, showed it flowing 6,090 bbls., or at the rate of 146,160 bbls. daily, only 268 bbls. a day less than the company's 5-D, which was completed with an initial production of 6,097 bbls. the first hour. No. 30-A is approximately 1¾ miles due south of No. 5-D.

The Llano Pool in northern Winkler County was extended 2 miles southeast by the Shell Petroleum Corp. and Llano Oil Co.'s No. 7 Scarborough, which is located in the SW of Section 2, Block 77. This test topped the pay from 2,942-62 feet, and swabbed and flowed 75 bbls. while drilling at 3,070 feet, and while drilling 18 feet deeper swabbed and flowed 77 bbls. the last 24 hours, ending 7 a.m. today. Elevation of this test is 2,957 feet. Considerable territory is opened by this extension, not only in the intervening distance between it and the main Llano Pool, but it also has possibilities to the east and west, and possibly still farther south.

Young & Donnelly's No. 1 Shannon-Powell in the SE of Section 42, T. C. Survey, 1½ miles south of production in the Powell Pool, Crockett County, which promised an extension last week when it topped the pay at 2,543 feet, was shut down at 2,556 feet with 2,000 feet of oil in the hole. On a test it swabbed 75 bbls. in 4½ hours and swabbed dry. After standing 13 hours the hole filled 1,000 feet, and the company is preparing to put it on pump.

Sutton County Showing

Sutton County had another small showing of oil this week in I. G. Priest and others' No. 1 Allison in Section 52, Block A, G.W.T.&P. Survey. It is now shut down for orders at 3,692 feet in lime. The showing was encountered at 3,632 feet, making about 2 bailers of oil per day. There is some water in the hole now, possibly coming from 3,660 feet. This is probably one more showing to help stimulate leasing and drilling activities in this area. Sutton, Schleicher and Edwards Counties have been the center of considerable leasing activity since the Phillips Petroleum Corp.'s No. 1 Whitten in Section 35, Block LL, T.C. Survey, had a good showing of oil from pay at 4,110 feet and an increase at 4,147 feet.

Fisher County looked a little more prosperous in the light of oil last week when the Mesa Oil Co.'s No. 1 Griffin in Section 29, Block 323, Bastrop County School Land, picked up a good showing of oil from 3,326-27 feet and was shut down for orders at 3,331 feet. The hole filled with 70 feet of 41 gravity oil at 90 degrees, and the show was shot, but with no results. This test is just north of the town of Sylvester, and the pay formation seems to correspond to the Cranfill & Reynolds' No. 2 Willingham in Section 207, Block 1, B.B.B.&C. Survey, but is approximately 50 feet above the Fisher pay. At present the test does not look so profitable, but another week will tell a definite story.

Penn and Atlantic Oil Producing Co.'s No. 1 Pecos Mercantile Co. (Bennett) in the N cor. of Section 16, Block 34, H.& T.C. Survey, 7 miles northwest of the Shinely Pool, Ward County, is shut down at 2,464 feet, making 40 bbls. per day on a swabbing test. The well is to be deepened. Top of the first showing was at 2,269 feet in the top of the lime. The big pay was from 2,348-55 feet, with an increase at 2,427 feet, where the hole filled 1,800 feet, was swabbed dry and refilled 1,000 feet in seven hours. Setting almost midway between the Shinley Pool to the south and the O'Brien Pool to the north, this discovery bids fair to open a vast territory to exploration and possible production, although at the present time the new pools in Pecos County are no doubt attracting much attention from this new area, and it might be some time before there is much of a drilling campaign in the vicinity of this new well.

Showing in Brewster

Remote Brewster County claimed a showing of oil during the week when J. P. Johnston and Weekly Oil Corp.'s No. 1 J. D. Jackson in the C of Section 104, Block 10, G.H.&S.A., in the northern part of the county, had a small showing of oil at 3,850 feet in sandy lime. The well is shut down at present waiting for engine repairs, but drilling will be resumed as soon as these are made. Elevation of this test is 3,992 feet. The contract depth was 3,500 feet, but it will probably be carried to around 4,000 feet since encountering this showing. It is an interesting test, and no doubt there are many operators and companies watching it closely for further affirmative signs.

The Railroad Commission is in session this afternoon with Howard County oper-

(Continued on Page 164)

WILDCAT OPERATIONS IN WEST TEXAS

Week Ended September 16

Company, farm and location—	Remarks—
ANDREWS COUNTY	
Deep Rock's No. 1 Ogden, 2,310 ft. E, 330 ft. S, Sec. 6, Blk. A-46, Public School Land	Total depth 785 ft.; shut down engine repairs.
BORDEN COUNTY	
Louisiana Oil & Ref. Co.'s No. 1 Miller, 1,320 ft. from W and 150 ft. from S line, Sec. 355, Blk. 97, H.&T.C.	Drlg. 560 ft.
Moncrief et al's No. 1 Munger, C of SW, Sec. 14, Blk. 31	Underreaming 750 ft.
Teas & Wheeler's No. 1 Long, 1,320 ft. N and E of Sec. 27, Blk. 30, T.&P. Sur.	Top salt 1,030 ft.; drlg. 2,440 ft.
BREWSTER COUNTY	
E. W. Bateman et al's No. 2 Nevill, 2,000 ft. S and W line of Sec. 62, Blk. 13, G.H.&S.A.R.R. Sur.	Shut down 2,050 ft.
Brewster Oil Co.'s No. 1 fee, 2,640 ft. S and 2,598 ft. E of NW cor., Sec. 45, Blk. G-15, G.C.&S.F.	Fishing 1,935 ft.
Cowden & Bowser's No. 1-A Jackson & Harmon, Sec. 1, Blk. 331, T.C.R.R. Sur.	Set 8-in. 1,550 ft.; shut down 2,000 ft.
Forrest Oil Co.'s No. 1 Skinner, C SW SE, Sec. 100, Blk. 2, G.C.&S.F. Sur.	Drlg. 520 ft.
J. M. Hickey's No. 1 Jackson & Harmon, NE cor., Sec. 182, Blk. 9, G.H.&S.A. Sur.	Shut down 2,000 ft.
Johnson & Weekley's No. 1 Jackson & Harmon, C Sec. 104, Blk. 10, G.H.&S.A. Sur.	Small show free oil 3,850 ft.
Van McPhail's No. 1 McIntyre, SE cor. Sec. 59, Blk. 352, 7 mi. S of Alpine	Shut down 1,740 ft.
COKE COUNTY	
Lipan Oil Co.'s No. 1 E. C. Rawlings, Sec. 390, Blk. 1-A, H.&T.C. Sur., elev. 2,750 ft.	Shut down 2,892 ft.
Mid-Kansas Oil Co.'s No. 1 W. E. Lackey, 330 ft. N and E of SW cor., Sec. 272, Blk. 1-A, H.&T.C.	Pay 3,755-56 ft.; 6¾-in. casing set 3,451 ft.; underreaming at 4,058 ft.; drlg. 4,080 ft.
CONCHO COUNTY	
Duffy et al's No. 1 Callan, 1,520 ft. N and 1,120 ft. W of SE cor., Sec. 21, Blk. 10, H.&T.C.R.R.	Spudded and shut down.
Jones & Leiner's No. 1 Jones, 420 ft. S and 15 ft. E of NW cor., John G. Reh Sur. No. 1,878	Top lime 1,770 ft.; top pay 1,775-80 ft.; 18 ft. oil in hole; to test; shut down 2,375 ft.
Turner et al's No. 1 Borsig, 150 ft. from S of SE cor. G. Emig Sur. 130, 6 mi. W of Paint Rock	Shut down 735 ft.
CRANE COUNTY	
Gulf Prod. Co.'s No. 67 McElroy, 2,102 ft. S and 2,640 ft. W of NE cor., Sec. 201, Blk. F, C.C.S.D. &R.G.N.G.R.R.	Drlg. 800 ft.; red sandy shale

(Continued on Page 124)

Another Pool Found in Young County

Shallow Territory to Be Exploited as Result of Discovery. Good Producer for Cooke County. Good Wells in Panhandle

By L. E. Bredberg
Fort Worth Bureau, The Oil and Gas Journal

FORT WORTH, Tex., Sept. 16.—Two more wells in Foard County, an extension of the Herron City Pool in Young County, and another pool discovery in this county, with a west extension to the Bryson Pool in Jack County, and a big well on the Timmis ranch in Cooke County marked the most important events of the week in the Wichita Falls district. Continental Oil Co.'s No. 1 Slaughter in Cochran County was not promising as much, for the Panhandle district, this week as it was last week when it encountered a showing of oil at 4,870-78 feet.

Although the curtailment plan entered into by several companies and operators in Gray County was not adopted by a few other companies, the plan must have had some effect for during the past three weeks production in the county has been on the decline, this week showing a 2,800-bbl. daily reduction. However, several good-sized wells were drilled in during the week, and when put on production will no doubt help raise the daily average of this county for this week. Companies having no pipe line facilities to take care of their new wells have to shut them in until they can obtain storage or pipe line connections, but some companies have helped solve their predicament by leasing and buying steel tanks. The Phillips Petroleum Corp. is one of such companies which has obtained temporary relief by this method, having leased ten 80,000 and six 55,000-bbl. steel tanks from the Continental Oil Co., and two tanks from the Dixon Creek Oil Co.

Hinson and Tidwell's No. 1 Mizzell and Perkins near the CNL of the R. F. Mitchell Survey No. 20, Abstract 2,205, opened more territory for expansion in Young County this week, when it topped a broken oil sand from 2,665-80 feet, and an oil sand from 2,680-85 feet. It was shut down at 2,685 feet, flowing by heads at the rate of 200 bbls. in 24 hours, making 750,000 feet of gas with the oil. The well is a wildcat, located 4 miles southwest of the Herron City Pool, and will undoubtedly cause considerable more drilling in this vicinity, possibly connecting the two areas with a string of producers.

Another Pool Opener

Another pool opener in this county is Wise and Porterfield's No. 1 Cuellers in the NE SW, Section 2, C.T.R.R. Survey, Abstract 2,177. This well was completed in the shallow sand at 556 feet after encountering the oil bearing formation from 544-56 feet and flowing 80 bbls. in 12 hours. More shallow territory is opened for exploitation by this well, and the following weeks will probably show several other tests put down around this well.

Cooke County scored another good producer this week when the Kewanee Oil & Gas Co.'s No. 9-B R. J. Timmis was completed for a 1,250-bbl. well, producing from a broken formation from 1,072-1,495 feet. The first swabbing dried it up, but after standing several hours the hole filled up and it flowed the 1,250 bbls. in 24 hours. This well is located near the west line of the R. J. Timmis 184-acre tract in E.T.R.R. Survey, Abstract 363.

The Bryson Pool in Jack County was extended to the west this week by the Bryson Oil & Gas Co.'s No. 1-B Loving, which is located in the SE cor., Section 3, T.&N.O. Survey, Abstract 852. The first oil showing was picked up from 3,-181-88 feet, but the well was drilled to the second pay from 3,250-57 feet before shutting down. It flowed approximately 15 bbls. per hour. This is the most northwest well in the pool, as well as being a western extensioner.

The Continental Oil Co.'s No. 1 Slaughter, located in the SW cor., Section 130, Carson County School Land, is preparing to plug back to the oil show at 4,870 feet, and probably will shoot. This well had its first showing last week and at 4,991 feet had 1,200 feet of fluid in the hole, 600 feet of which was oil. Sulphur water was picked up at 4,915 feet and an increase in water lower down. Total depth is 4,990 feet, and the test does not look near as promising as it did when first reports of the oil showing came in.

Two in Foard County

Foard County was rewarded with two wells this week, both of them owned by the Shell Petroleum Corp., the first well being its No. 1 Thompson to the west of its discovery well on the Tarver ranch, and the second one being No. 1 Ward. The Thompson well had saturated lime from 2,010-50 feet and flowed 67 bbls. of oil and 4 bbls. of water. No. 1 Ward is cleaning out at 2,045 feet after encountering a saturated lime from 2,018-45 feet and shutting down at the latter depth. It swabbed 56 bbls. of oil and 1 bbl. of water in 17 hours.

In Coleman County, in the Ranger district, the Vacuum Oil Co. completed a nice well in its No. 3 Weaver in the Weaver Pool, located 3,382 feet from the north and 3,110 feet from the east lines of the Andrew Gabel Survey No 271. The oil sand was picked up at 1,826-33 feet, and the well was completed with an initial production of 492 bbls. in 24 hours.

The Weaver Pool, before completion of this well, has been averaging 536 bbls. daily from six wells, with approximately 5,000,000 feet of gas which has a gasoline content of about 3 gallons per 1,000 feet.

The Eastland or Morris Pool in Coleman County had a daily production of 1,508 bbls. as of September 11. The Midwest Exploration Co. produced 185 bbls.; the White Eagle Oil & Refining Co., 934 bbls.; Levi Smith, 91 bbls.; and Tower & McKenna, 984 bbls. Daily average gas production during August was 50,000,000 feet, and the daily average now is 90,000,000 feet irrespective of the large gas wells which have been completed recently. Levi Smith produces 20,000,-000 feet, the Midwest 35,000,000, and Tower & McKenna 15,000,000 feet. Most of this gas has been blowing in the air, but a gasoline plant is now being installed to save it. The gasoline content averages between 1½ and 2 gallons per 1,000 feet.

Tower & McKenna's No. 1 Crowder which was completed for 37,000,000 feet of gas about 50 days ago, with a rock pressure of 495 pounds, is now making only 15,000,000 feet with a rock pressure of 260 pounds, showing how rapidly the gas declines in this pool.

The George Pool in Brown County received two good wells when P. K. French completed his No. 2 Belvin in the R. Chaddic Survey for a 375-bbl. well from sand from 1,297-1,316½ feet. E. L. Smith completed his No. 4 George for 100 bbls. from sand at 1,310-30 feet.

PANHANDLE COMPLETIONS

Week ending September 14

Carson County

Gulf Production Co.'s No. 7 Noel, located in Section 198, Block S, was drilled to a total depth of 3,239 feet, topped the pay at 3,184 feet, had an initial production of 70 bbls. oil and 12 bbls. water in 24 hours. Magnolia Petroleum Co.'s No. 7 fee, located Section 81, Block 4, I.&G.N. R.R. Survey, had an initial production of 70 bbls. oil at 2,990-3,000 feet. Osborn and others' No. 2 Percival swabbed 480 bbls. the first 24 hours at 3,203-11 feet.

Gray County

The Texas Company's No 3 Shaw, located Section 5, Block 1, A.C.H.&B.R.R. Survey, was drilled to a total depth of 2,700 feet, and had an initial production of 1,314 bbls. oil and 7,000,000 feet of gas the first 24 hours at 2,680-2,700 feet. Its No. 6 Williams, located Section 6, Block 1, A.C.H.&B.R.R. Survey, had an initial production of 650 bbls. the first 24 hours at 2,680-2,697 feet. McMan Oil & Gas Co.'s No. 4 Palmer, located Section 31, Block B-2, H.&G.N.R.R. Survey, had an initial production of 335 bbls. at 2,816-2,905 feet. Phillips Petroleum Corp.'s No. 2-A Jackson, located in Section 88, Block B-2, H.&G.N.R.R. Survey, swabbed 350 bbls. in 24 hours at 2,910-12 feet and was drilled to a total depth of 2,970 feet. The Texas Company's No. 12 Bowers, located Section 63, Block B-2, made 55 bbls. daily at 3,153-55 feet. Its No. 4 Combs-Worley was drilled to a total depth of 2,940 feet, encountered granite wash pays at 2,795-2,829 and at 2,862-73 feet and had an initial production of 265 bbls. oil and 8,000,000 feet of gas. Gulf Production Co.'s No. 2 Saunders had an initial production of 40 bbls. oil and 75 bbls. water at 2,451-2,651 feet.

Hall County

Rio Bravo Oil Co.'s No. 1 Hughes estate was dry and abandoned at 5,232 feet.

Hutchinson County

Amarillo Oil Co.'s No. 2-A Ingerton was drilled to a total depth of 3,157 feet, plugged back to 3,117 feet, shot with 80 quarts at 3,057-3,147 feet and had an initial production of 7,000,000 feet of gas from 2,500-3,117 feet. Danciger Oil & Refining Co.'s No. 2 Moore had an initial production of 180 bbls. first 24 hours at 3,025-50 feet. Rock Creek Oil Co.'s No. 3 Johnson Brothers had an initial production of 300 bbls. oil first 24 hours at 2,845-2,935 feet.

Wheeler County

Mudge Oil Co.'s No. 3 Hicks had an initial production of 30,000,000 feet of gas at 1,701-1,840 feet and was drilled to a total depth of 1,861 feet.

NORTH TEXAS PRODUCTION

Week ending September 14

Panhandle District—	Prod.
Carson County	9,331
Hutchinson County	23,991
Gray County	92,419
Moore County	996
Potter County	....
Wheeler County	670
Total this week	127,407
Total last week	132,303
Decrease	4,896
Wichita District—	
Archer County	19,197
Baylor County	68
Clay County	735
Cooke County	11,096
Foard County	240
Jack County	3,866
Haskell County	86
Montague County	6,467
Throckmorton County	648
Wilbarger County	31,709
Young County	7,389
Wich.ta County	26,106
Total this week	107,607
Total last week	110,100
Decrease	2,493
Ranger District—	
Brown County	9,061
Callahan County	3,605
Coleman County	7,545
Comanche County	1,230
Palo Pinto County	565
Eastland County	5,851
Shackelford County	10,450
Stephens County	6,504
Total this week	44,811
Total last week	44,447
Increase	364
Grand total this week	279,825
Grand total last week	286,850
Decrease	7,025

WILDCAT OPERATIONS IN TEXAS PANHANDLE

Week Ending September 16

CARSON COUNTY

Company, well, farm, name, section and block—	Remarks—
Champlin Ref. Co.'s No. 4 McConnell, 990 ft. S, 330 ft. E, NW W½ NW, Sec. 67, Blk. 4, I.&G.N.R.R. Sur.	Drlg. 285 ft. I. G. 2,738-44 and 2,810-20.
Continental Oil Co.'s No. 1 Block, 330 ft. S and W, NE cor. SE Sec. 111, Blk. 4, I.&G.N.R.R. Sur.	Rigging up.
Danciger O. & R. Co.'s No. 1 Block, 330 ft. from N and E lines, Sec. 112, Blk. 4, I.&G.N. Sur.	Drlg. 1,401 ft.
Delmar Oil Co.'s No. 5 Noel, 330 ft. S and W, NE cor. W½ SE, Sec. 198, Blk. 3, I.&G.N. Sur.	T. D. 3,131 ft, S. G. 3,000-10 ft.
Empire G. & F. Co.'s No. 19 Burnett, C SE, Sec. 89, Blk. 5, I.&G.N.R.R. Sur.	T. D. 1,997 ft.
Empire G. & F. Co.'s No. 1 M. P. Co., "C," 330 ft. N and W, SE cor. NW, Sec. 108, Blk. 4, I.&G.N.R.R. Sur.	Drlg. 2,630 ft.
Empire G. & F. Co.'s No. 2 Deahl, 660 ft. N and E, SW, Sec. 3, Blk. 5, B.&B. Sur.	Location.
Empire G. & F. Co.'s No. 1 Fuqua, 330 ft. N and W, SE cor. NW, Sec. 17, Blk. 3, A.B.&M. Sur.	Drlg. 1,475 ft.
Empire G. & F. Co.'s No. 2 M. P. Co. (Lane), C NE, Sec. 62 Blk. 4, I.&G.N.R.R. Sur.	Drlg. 1,835 ft.
Empire G. & F. Co.'s No. 1 Deahl, 660 ft. from S and W lines, Sec. 3, Blk. 5, B.&B. Sur.	Drlg. 2,320 ft.
Gulf Prod. Co.'s No. 1 Garner-B, 330 ft. N and W, SE cor. SW, Sec. 106, Blk. 4, I.&G.N.R.R. Sur.	Estimated 7,000,000 ft. gas; T. D. 3,195 ft. c-o 3 bbls. per hr; 15,000,000 ft gas.
Gulf Prod. Co.'s No. 3 Cooper, 330 ft. S, 990 ft. W, NE cor. SW, Sec. 5, Blk. 9, I.&G.N.R.R. Sur.	T. D. 2,588 ft. standardizing.
Gulf Prod. Co.'s No. 4 Cooper, 330 ft. S and E, NW SW, Sec. 5, Blk. 9, I.&G.N.R.R. Sur.	Drlg. 2,373 ft.
Herragan Oil Co.'s No. 1 L. C. McConnell, 330 ft. N and W lines W½ SW, Sec. 187, Blk. 3, I.&G.N. Sur.	S.G. 2,780 ft; increase from 2,860-2,908 ft; fishing 2,925 ft.
Midwest Explin. Co.'s No. 4 Cooper, 330 ft. N and E, SW cor. W½ NW, Sec. 5, Blk. 9, I.&G.N. Sur.	T. D. 2,125 ft.; running 8¼-inch csg.

(Continued on Page 123)

Young County

Carpenter's No. 9 Barrett was dry and abandoned at 648 feet. Pennell and others' No. 6 Calvin was dry and abandoned at 585 feet. Rounnell Oil Co.'s No. 6 Jack had an initial production of 5 bbls. oil at 534-50 feet. Riggs' No. 1 McClure was dry and abandoned at 539 feet. Roamer Oil Co.'s No. 1 McClotchey was dry and abandoned at 1,151 feet. Trinity Oil Co.'s

(Continued on Page 130)

Pipe Line Construction News

CITIES SERVICE EXPANDS ITS LINES IN KANSAS

Construction of several major extensions to the Cities Service Gas Co.'s main pipe line system extending natural gas service into new areas is actively under way.

Work on the Petrolia-Fort Scott pipe line, recently announced, has been started. The Gas Service Co. acquired the Fort Scott distribution property, and the Cities Service Gas Co. the pipe lines of the Union Gas Co., which formerly had served that area. The new line will materially increase the supply of natural gas available to domestic and industrial customers in Fort Scott.

An 8-inch pipe line, 29 miles long, from Hutchinson, Kans., to carry an industrial load at Lyons, Kans., is a part of the extension program. Contract for this project calls for completion within 30 days.

Construction of the 20-inch line from Ottawa, Kans., junction to the Lawrence junction is under way. This line is 19 miles long, and will be continued from the Lawrence junction toward Topeka, a distance of 15 miles, as a 16-inch line. Several hundred men will be engaged in the work, with November 20 as the estimated completion date. This line will increase the potential deliveries of natural gas to Topeka, Lawrence and other northeast Kansas cities and to St. Joseph, Mo.

ARKANSAS-LOUISIANA LINES REPORT PROGRESS

SHREVEPORT, La., Sept. 16.—All the clearing, ditching and stringing of pipe on the Arkansas-Louisiana Pipe Line Co's (Arkansas Natural Gas Corp.) 20-inch line from Longwood, on the Texas line near Shreveport, to Monroe and Richland gas field gathering system and compressor station has been done. Some 112 miles have been welded and approximately the same amount painted, laid and backfilled. Eighteen 20-inch and two 8-inch gates and six drips have been installed; 13,465 20-inch and 119 23-inch welds and 13,514 couplings made.

Similar rapid progress is reported on the Southern Natural Gas Corp's 22-inch line from the same fields to Birmingham, Atlanta and other southeastern points in Mississippi, Alabama and Georgia. Some 400 miles of the right of way has been cleared, 234 miles ditched and 220 miles laid on main line and laterals.

BIG COMPRESSOR STATION

The Arkansas-Louisiana Pipe Line Co., subsidiary of the Arkansas Natural Gas Corp., is constructing one of the largest natural gas compressor stations in the world at Sterlington, 20 miles from Monroe, La. The project will cost approximately $1,000,000. The contract is being given to the Republic Construction Co. of New York city. The compressor station will be used in connection with the company's new 100-mile 20-inch gas line now under construction from the Monroe and Richland gas areas to Shreveport, La., and will also be connected with the 16-inch line to El Dorado, Ark., recently acquired by the company.

LINE TO GIRVIN POOL

HOUSTON, Tex., Sept. 16.—The Texas Pipe Line Co. has started laying line from the new Girvin Pool in Pecos County opened by Rowan & Rong's No. 1 McDonald. The line, which will be 6-inch and 12 miles long, will make connection at McCamey with the company's West Texas-Port Arthur trunk line.

LINE TO LA JOLLA

SAN FRANCISCO, Calif., Sept. 14.—The Southern Counties Gas Co. today applied to the State Railroad Commission for a certificate of public convenience and necessity to construct a 12¾-inch gas main from Huntington Beach in Orange County to La Jolla in San Diego County, a distance of 80 miles. The line would be built at an estimated cost of $1,200,000 and would carry 27,000,000 feet of gas daily.

PLANS RAILROAD TO LOVINGTON, N. M., FIELD

William H. Williams chairman of the Missouri Pacific, announces that his system will build a 70-mile line at a cost of $1,825,000 into the oil district at Lovington, N. Mex., whenever the Interstate Commerce Commission approves the project. The field has now four wells with a capacity of 2,000 bbls. a day, and 25 wells are being drilled. There is also agricultural and live stock industry in the vicinity.

Haskell C. Davis, examiner for the commission, has made a report in which he recommends that the Texas-New Mexico line, a subsidiary of the Texas & Pacific Railway, which is part of the Missouri Pacific system, extend its line to Lovington. The report of Mr. Davis must be approved by the commission before the Missouri Pacific can go ahead with the project.

Mr. Davis also recommended that the South Plains and Santa Fe Railway, a subsidiary of the Atchison, Topeka and Santa Fe, should build a 46-mile extension from Seagraves, Tex., to Lovington.

WESTERN NATURAL GAS LINE

SAN FRANCISCO, Calif., Sept. 17.—Intention to construct its proposed natural gas line from Kettleman Hills Field to bay districts as private carrier in case permission is not granted by the Railroad Commission to use it as a public utility is expressed by newly organized Western Natural Gas Co. in application for rehearing filed with the commission. In a recent decision the commission voted 3 to 2 not to permit the new company to build the line. The Western Natural Gas Co. attacks the decision as opposed to the public interest, stating that the rates it opposed were much less than those which the Pacific Gas & Electric Co. proposes to charge. The company says it has contracts fully justifying its operation of the pipe lines as a private carrier.

PUMP STATION AT VINCO

Construction of a new pump station by the oil pipe line division of the Empire companies has been completed at Vinco, Okla. This station is 2 miles south of Perkins on the 8-inch oil pipe line between Cimarron and Blanken. It houses two 4-inch centrifugal pumps which are driven by 250-horsepower, 2,200-volt electric motors. This station increases the capacity of the Cimarron-Blanken oil pipe line from 27,000 to 40,000 bbls. daily.

OKLAHOMA CITY TANK FARM

Construction of a tank farm south of the Oklahoma City field, across the line in Cleveland county, was announced by the Cromwell-Franklin Oil Corp. of Oklahoma City. The farm will be located on what is known as the C. J. Jones property in NE 2-10-2w, and comprises about 150 acres. The contract calls for five 80,000-barrel tanks, with the first tank to be completed within 30 days.

PRODUCTION OF STEEL FOR YEAR NEW RECORD

By B. E. V. Luty

PITTSBURGH, Pa., Sept. 16.—The Steel Corp.'s statement of unfilled obligations at the end of August, 3,658,211 tons, indicated a decrease of 429,966 tons during August. That was quite a large decrease for a single month but considering all the circumstances the showing was not an unfavorable augury for the future. More often than not August shows a decrease, so that a decrease may be considered seasonal, but usually the decrease has been a small one. Shipments, however, were very heavy and that at least takes the edge off the unfavorable showing. The present month of September is one for the making of quarterly contracts while on account of August being the period of greatest vacationing and the vacation season being over now there would be more buying outside of regular contracting. Altogether there are chances that this month will show an unfilled tonnage increase. The first four months of this year showed unfilled tonnage increases totaling 451,051 tons, while the next four months showed decreases totaling 769,552 tons. A large part of the decrease in the last four months is accounted for by rails, in which there were heavy deliveries while as to buying rails were largely out of season. The annual buying movement will begin in a few weeks.

The rate of steel production decreased 2.0 per cent from July to August, while the decrease from May, which showed the all time record high rate, was 6.7 per cent. Altogether the decrease was a trifle less than expected.

Some further decrease is to be expected to the end of the year, as production has been altogether exceptional and a slipping back to the average, or what might possibly be called normal, would be natural. Prior to last year the largest production in any consecutive 12 months was 47,000,000 tons, while 1928 showed 50,000,000 tons, chiefly on account of heavy production late in the year, and the 12 months to September 1, 1929, show 56,300,000 tons. It seems like a fair guess to put the last four months of this year equal to the last four months of last year, whereby this year's total would be 56,000,000 tons, or 10 per cent over last year, and that would be a really remarkable gain.

General conditions in steel thus far this month have shown no material change from those in August. While a seasonal increase in buying has been expected it is rather early for anything to be reflected in mill order books. The rate of steel production has slipped a trifle from the August average and is now perhaps 5 per cent under that rate. The decrease is due chiefly to light operation of rail mills, annual orders having been completed in August while there has been little additional buying.

The automobile industry is running along much the same as formerly. The principal seasonal decrease in automobile production occurred between May 1 and July 1, but at that time the decreased steel requirements in that quarter did not make much impress on the general situation since mills had other places to put the released steel, being behind hand in filling orders. Now they are fully caught up.

Steel deliveries to the freight car shops will be almost entirely completed by the end of next month, against the large car orders placed early in the year and there is no sign of there being much car buying in the near future. The structural fabricating shops, on the other hand, have large order books and are certain to run for quite a while at their recent rates.

Nothing new has developed in tubular goods. Pipe mills are quite comfortably filled with line pipe business, chiefly in relatively small orders, and lap weld departments are averaging about 80 per cent operation, against under 50 per cent last May. Butt weld furnaces are averaging about 60 per cent as formerly. Seamless tube mills have operated at around 70 per cent for months.

SINCLAIR PIPE LINE CO. LINE TO OKLAHOMA CITY

The Sinclair Pipe Line Co. issued work orders for construction of its 8-inch pipe line from its Payson station near Shawnee to the south Oklahoma City field. If the weather permits the line is expected to be in operation when the shutdown is lifted. Capacity of the line will be 22,000 barrels daily. The contractors are Meadows & Whittaker of Wichita Falls, Tex.

The Oklahoma Pipe Line Co. is rushing work on its 8-inch line from the Cushing station to the south field. It will have a daily capacity of 22,000 barrels. A number of 37,500-barrel tanks will be built. The company expects to have the line in operation by October 1.

The Prairie Pipe Line also is taking advantage of the 30-day shutdown to improve its pump station and gathering lines.

KANSAS CITY GAS LINE

Fairfax Airports, Inc., of Kansas City has entered into a contract with Cities Service Co. for sale of its surplus natural gas production from wells located on the airport property at Kansas City, according to announcement by Guy E. Stanley, president of the airport concern.

The airport company now has seven wells producing an aggregate of 11,000,000 feet of natural gas daily, with estimated potential yield of 40,000,000 feet daily from the gas dome underlying the field. The company's operations contemplate the withdrawal of 10 per cent of this total capacity daily, or 4,000,000 feet. Fairfax airport requires 1,000,000 feet daily, which is being marketed to hangars and factories at the field at 40 cents per 1,000 feet. The remaining 3,000,000 feet will go into the Cities Service pipe line at 18 cents per 1,000 cubic feet. The company will lay a short pipe line connecting its wells to the Cities Service lines serving Kansas City.

GAS, NOT OIL, LINE

CHICAGO, Sept. 14.—A pipe line is building from East Chicago around the foot of Lake Michigan and the report was current in this city that it was from the Sinclair refinery to Muskegon. The line had been completed as far as Michigan City. Inquiry developed that it is an 8-inch pipe line building by the Northern Indiana Utilities Co. It starts at a large gas supply tank near the Sinclair refinery and will be extended to various cities east and south of its starting point among them being South Bend, Crown Point and Fort Wayne.

EGYPTIAN PIPE LINE

NEW YORK, Sept. 14.—The Royal Dutch Shell Co. has applied to the Egyptian government for permission to lay a pipe line from Suez to Cairo. The projected line would have capacity for delivering 2,400 tons of crude daily at Cairo.

Old Stills Give Way to Ultra-Modern

Exactness in Design and Flexibility of Operation Feature Distilling Units at Pennsylvania Refining Co.

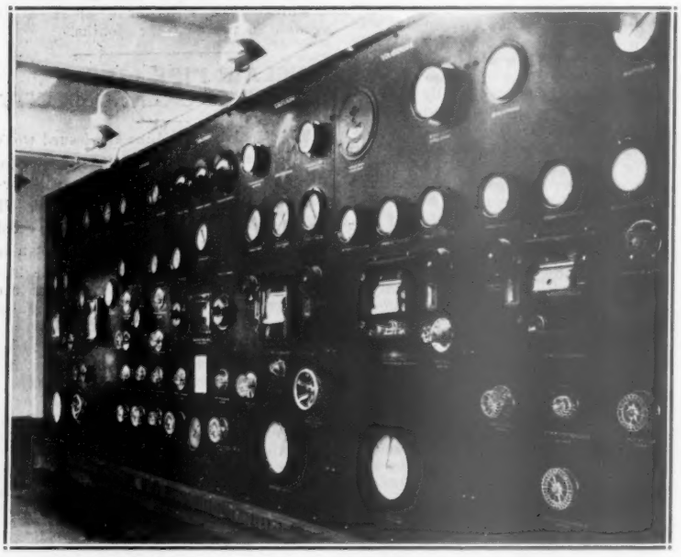
By W. T. Ziegenhain

A most striking example of modern distillation equipment may be seen at the refinery of the Pennsylvania Refining Co. in Karns City, Pa. The units are small but typify the distinct trend toward compactness, precision in design, centralized control and low operating cost. Possibly this is emphasized more by the fact that off to one side of the new units stands the long battery of hand-fired shell stills. There is no sign of a tower on the whole battery and rerunning was taken as a matter of every-day routine. These stills were shut down only two months ago, signaling the passing of obsolete equipment from another typical Pennsylvania refinery.

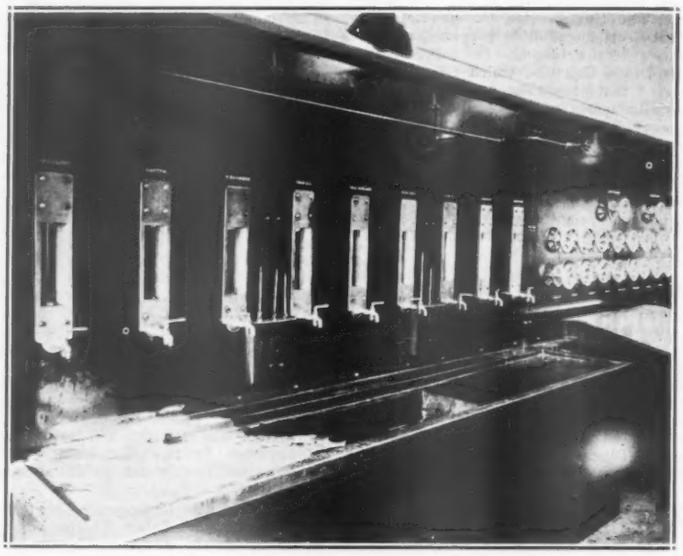
John A. Beck, president of the company, is particularly proud of the control room for the new units. This is a long room, well lighted and well ventilated, containing a control board on one wall and opposite this is the "receiving house." The control panel contains every indicating and recording instrument used in the operation of the topping unit, the vacuum unit and the solution rerun unit.

On the same panel and at convenient points on the board are the control valves so that one man is able to operate the three units without leaving the room. The "receiving house" on the opposite side of the room is even more unique. Instead of the usual array of look boxes and manifolds, there is a series of look glasses and sample cocks and a sample table. A light is placed in back of each look glass to show the color of the stream and to show the quantity coming over.

Samples of the respective streams are secured by simply turning the little brass cock and with the hydrometer readily available in the rack mounted on the panel, it is a simple matter for the stillman to keep a close check on the quality of the streams. To the right of this panel are the manifold valves which direct the streams into the proper tanks.



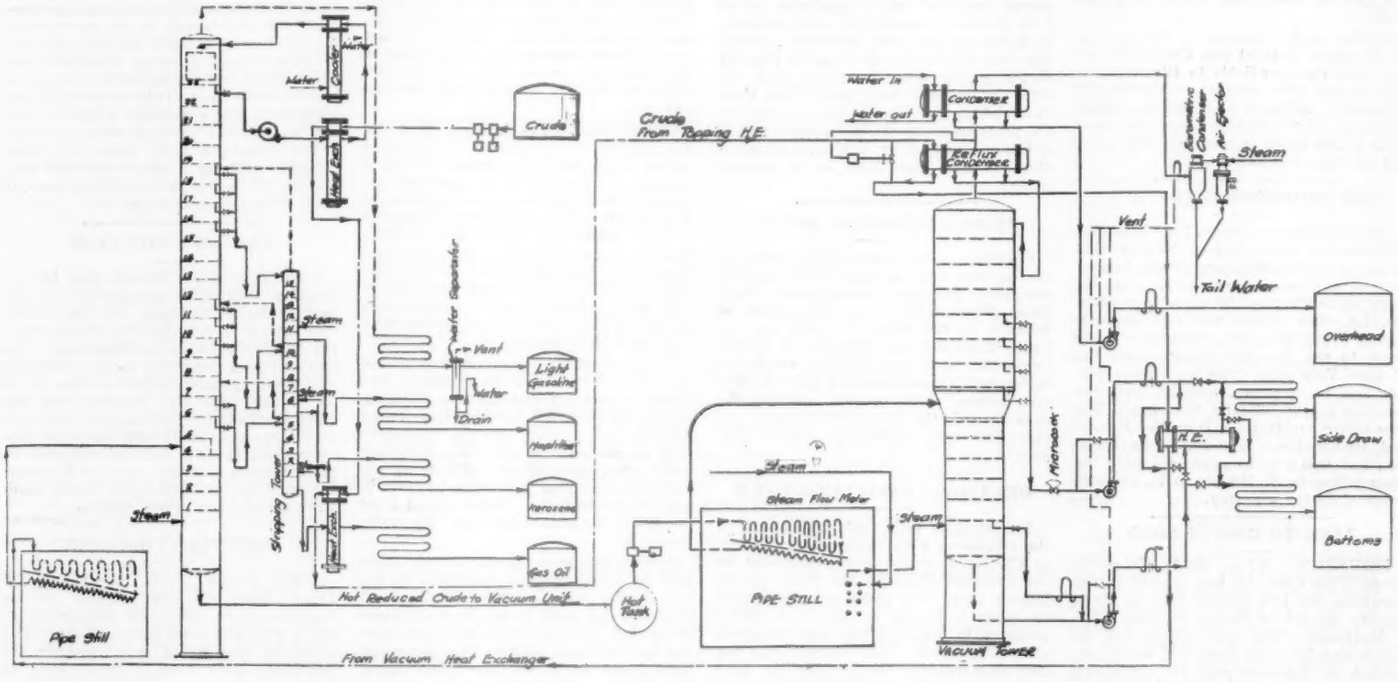
Control panel showing arrangement of indicators, recorders and control valves for the operation of topping plant, vacuum unit and rerun unit.



Section of control room showing look boxes and sampling arrangement for control of all distilling equipment.

Design Practical

The idea might be gained at this point that sound and economic construction practices had been sacrificed for the sake of appearance. An inspection of the compartments behind these panels will not substantiate this, however. Enough room is left to conveniently make any replacements, changes or additions. This has been made easy by making the panels long and by bringing the leads straight up from below where possible. All electric wiring is run in conduit along the edge of the panels so the reverse of the control board is as neat in appearance and as practical as the face. Leaving the control room, one sees the same exactness



Flow chart showing processing of crude through topping unit and vacuum unit at the Pennsylvania Refining Co.

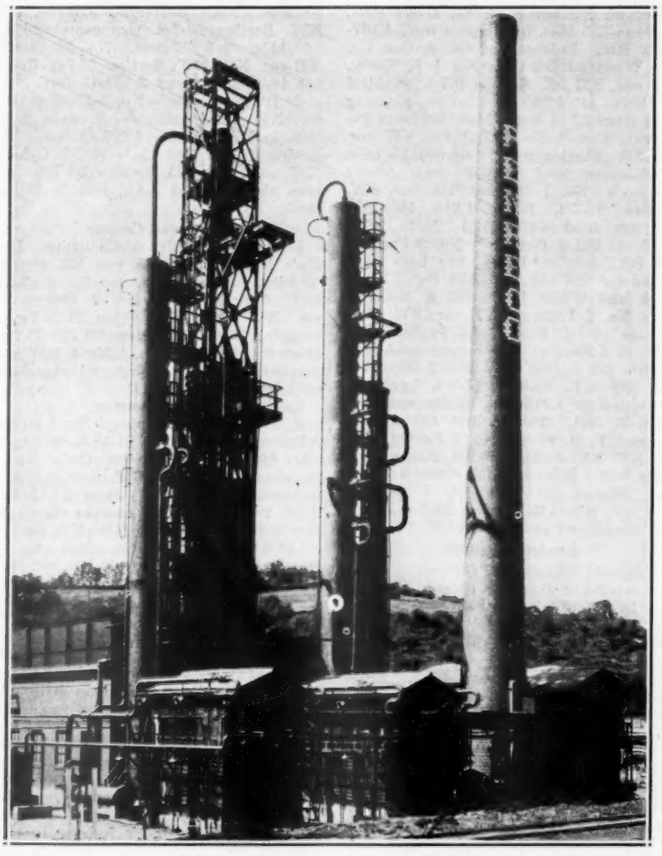
in detail and compactness of equipment in the distillation units themselves.

For convenience in following the operation, the accompanying flow chart was drawn to include the processing of the crude through the topper and through the vacuum unit. The rerun unit for pressed wax distillate or the bright stock-naphtha solution will be discussed later.

The topping unit has been designed to handle 1,200 bbls. of kerosene and gas oil as overhead products and the bottoms are then run to the vacuum unit. The pipe still contains 127 tubes 2 inches in diameter, inside diameter, in the convection section at the top and 56 tubes 1⅞ inches in diameter in the radiant section. The tubes in the convection section are 8 feet long and those in the radiant section are 8 feet long.

Description of Tower

The tower stands 84 feet high and is 4 feet 3 inches in diameter. It contains 23 bubble cap plates, each holding 80 bubble caps of approximately 4 inches in diameter. Obviously, the large number of bubble caps greatly increases the exposed surface of the liquid in the tower bringing about a more intimate contact between the liquid and the ascending vapors in the interest of more effective fractionation.



General view of pipe stills and towers comprising topping, vacuum and rerun distillation units.

In the top of the tower is a section about 3 feet in diameter and 3 feet high, packed with Raschig rings. This section uniformly distributes the reflux pump-in to give a more exacting and quicker control of the unit. A small centrifugal pump picks up the liquid on the tray immediately below the ring packed section and pumps it, first, through an exchanger where it loses a portion of its heat to the incoming crude and then, through a second exchanger where it is cooled by water. The control of the operation is centered in adjusting the flow of the water through the second condenser.

An auxiliary tower 2½ feet in diameter and 33 feet high, containing 15 bubble cap sections is set on a skirt to one side of the main tower. The function of this tower is to strip any fraction taken from the large tower. The main tower is tapped at nine places and a suitable arrangement of manifolds introduces the streams at the proper points in the auxiliary tower. The small tower is tapped at three places, permitting up to three streams to be taken off. The liquid condensate from the base of the tower passes through a second crude exchanger.

Processing of Crude

The oil flow through the topping unit is comparatively easy to follow, the crude passing through the two crude exchangers previously described and then through two exchangers in the vacuum unit, before it goes to the pipe still. In passing through these exchangers its temperature is raised to about 350 degrees Fahrenheit. On leaving the pipe still the temperature ranges between 575 and 580 degrees Fahrenheit. It enters the large tower above the fourth bubble cap section, the vaporized portion passing up through the series of 19 bubble cap sections and the liquid portion finds its way down through four bubble cap sections. The bottoms are run to a hot tank as the supply tank for the vacuum unit.

The overhead stream from the tower is a 360 endpoint domestic aviation gasoline which is blended with a small proportion of natural gasoline and sold as "Penreco" gasoline. Stoddard's solvent and other special naphthas are made as side streams of the auxiliary or stripping tower and kerosene is also taken from this tower as a side stream.

Considerable steam is introduced into the stripping tower to effect the vaporization and removal of the lighter fractions in making these products, the steam and the vaporized portion passing up through the smaller tower to enter the larger tower just below the nineteenth bubble cap section.

Tests on Streams

The distillation tests on representative samples of the overhead streams taken from this unit are shown below.

Distillation Tests on the Streams From Topping Unit

Per cent Over	Gasoline °F.	Naphtha °F.	Kerosene °F.	Gas Oil °F.
I.P.	112	300	420	525
10	182	352	433	558
20	212	360	441	568
30	230	366	446	573
40	245	370	450	580
50	260	371	457	585
60	274	372	468	592
70	289	373	481	605
80	302	378	497	620
90	319	387	510	645
E.P.	357	410	562	713

It is interesting to note the small amount of overlapping in the gasoline and naphtha streams and the gap of 10 degrees shown between the naphtha and kerosene streams.

Tests on the bottoms from the topping operation which go to the vacuum unit show it to have average quality as follows: Viscosity at 210 degrees Fahrenheit 58 seconds; pourpoint 86, gravity 20.

Vacuum Unit

As this oil leaves the topping unit it is about 475 degrees Fahrenheit temperature and on entering the pipe still of the vacuum unit is about 450 degrees Fahrenheit. This pipe still is very similar to the topping still in its general appearance and construction. The convection section includes 124 tubes 1⅞ inches inside diameter and 9 feet 3 inches in length, and the radiant section includes 49 tubes of thirteen-sixteenths inside diameter. The still also serves to superheat the steam coming from the power plant for use in the unit. A bank of five tubes, 2½ inches in diameter and 6 feet long, raises the temperature of the incoming steam from 230 degrees Fahrenheit to 550 degrees Fahrenheit and this steam is introduced into the base of the vacuum tower to exert a partial pressure effect in distilling off a greater portion of the lighter fractions. The steam entering the vacuum tower is maintained near 550 degrees Fahrenheit and the volume is regulated from the control house as indicated by a steam flow meter. This varies between one-eighth to one-fourth pound per barrel of charging stock. As the heated oil enters the vacuum tower it is about 665 degrees Fahrenheit. The point of entry is about midway up the tower and at the junction of the large and small sections. There are seven bubble cap sections in the upper portion of the tower and six sections in the lower portion. Each of the plates in the upper section holds 450 bubble caps 3 inches in diameter and each plate in the lower section holds 115 bubble caps 4 inches in diameter.

The total height of the tower is about 46 feet, the upper section being 9 feet in diameter and 23 feet high and the lower section is 6½ feet in diameter and 23 feet high.

High Vacuum Maintained

A pressure of between 35 and 40 mm. of mercury is maintained during the operation in handling 440 bbls. of charging stock daily. This is accomplished by a barometric condenser followed by an air ejector.

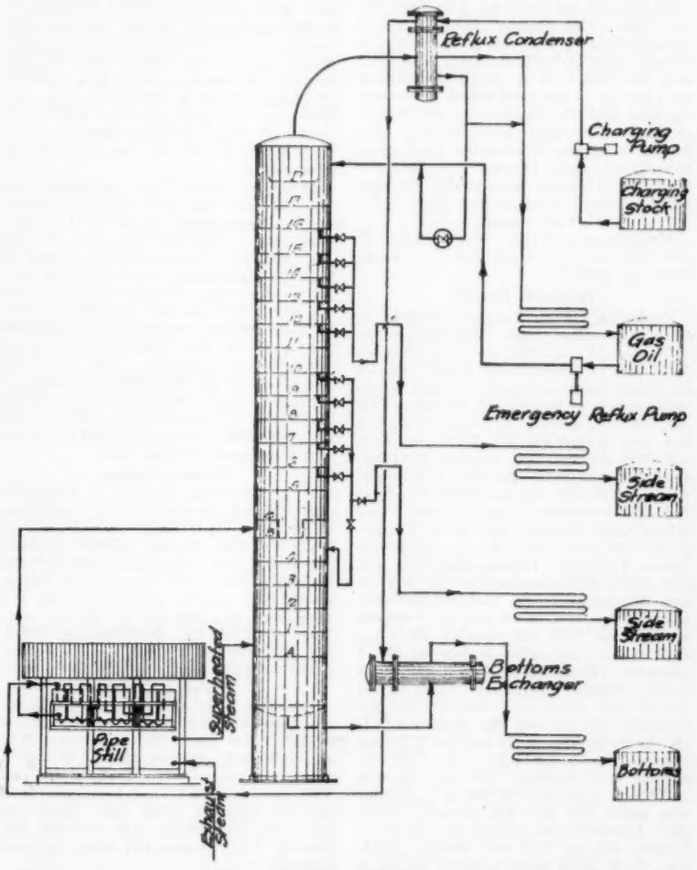
Approximately 60 per cent of the charging stock is vaporized and is taken overhead. The vapors first pass through a reflux condenser where they give up a portion of their heat to the crude before it enters the topping unit pipe still. These vapors then enter a condenser cooled with water and the condensate is continuously drawn off as raw wax distillate.

Operating as at present and not making any overhead cylinder stock, this wax distillate has a gravity of about 35, a flash of 360 and a Saybolt viscosity at 100 degrees Fahrenheit of 85. This cut is readily pressible without further cracking as is required in shell still operation.

Side Streams

A side stream may be drawn from any one of four points in the vacuum tower and gives up a portion of its heat to the topped crude in passing through an exchanger as mentioned before. This side draw will vary in quality depending upon the method of operation and the point in the vacuum tower at which the stream is taken, but at present has a flash of

(Continued on Page 157)



Flow chart showing flexibility permitted in operation of rerun unit. This unit was designed to recover the naphtha from the stock and naphtha solution in the manufacture of bright stock but may be used to run pressed distillate also.

OKLAHOMA FIELDS

(Continued from Page 50)

to be drilled to a total depth of 4,500 feet. One location is in the C SW, Section 23-12-24w, the other in the NW cor., Section 24-12-25w, Roger Mills County.

Wirt Franklin Petroleum Corp.'s No. 1 Van, SW cor. NW NW Section 4-5-9, Caddo County, has recovered some of the drill pipe but is still fishing for the balance of the casing, the total depth remains the same, 5,855 feet.

Seminole Pipe Line Runs

The daily average pipe line runs from the Seminole area totaled 299,855 bbls., an increase of 1,535 bbls. over the last week. The runs for the last week were as follows:

Company—	Bbls.
Barnsdall	3,530
Champlin	5,493
Continental	470
Consolidated	523
Cosden	10,095
Empire	11,215
Gulf	37,526
Independent	0
Magnolia	24,387
Oklahoma	49,718
Prairie	60,052
Prod. & Ref.	1,032
Pure	4,579
Shaffer	2,716
Shell	9,184
Sinclair	29,017
Texas	17,253
Tidal	21,788
White Oak	2,798
Total	291,301
Tank cars	8,464
Grand total	299,855

St. Louis Pipe Line Runs

The daily average pipe line runs from the St. Louis Pool for the last week were as follows:

Company—	Bbls.
Consolidated	2,871
Cosden	537
Gulf	3,670
Magnolia	24,814
Oklahoma	982
Prairie	25,074
Sinclair	18,580
Shell	905
Texas	2,897
Tidal	8,372
Total	88,702

The Carter Oil Co.'s No. 7 Durant, SE cor. SW NE Section 18-16-9, Creek County, found a hole full of water in the Wilcox sand at 3,578-84 feet. This test was the first well to reach the Wilcox sand horizon in the pool, which is producing from both the Bartlesville and Dutcher sands. The pool was originally producing from the Bartlesville sand until recently when the Dutcher sand was uncovered and caused considerable drilling, which resulted in some good-sized wells.

Coal County

McCraw and others' No. 1 King, C SW NE, Section 11-1-8, has been abandoned at 1,580 feet.

Oklahoma County

Cromwell, Wirt Franklin Petroleum Corp. and others made location for No. 7 Trosper Park, SW cor. SE, Section 12-11-3w, Oklahoma City Field. Indian Territory Illuminating Oil Co. and others made location for No. 3 Jennings, SE cor. NE SE, Section 13-11-3w. Location has been staked for No. 3 Thomas-Fuzzell, NE cor. SE SE, Section 13-11-3w. Location was made for No. 5 Trosper, SE cor. NE SW, Section 13-11-3w. Wirt Franklin Petroleum Corp., Cromwell and others made location for No. 8 Trosper Park, NE cor. NW, Section 13-11-3w. Indian Territory Illuminating Oil Co. and others made location for No. 6 Trosper, NE cor. SE SW, Section 13-11-3w. Location has been made for No. 3 Wheeler, NE cor. NW SE, Section 13-11-3w. Hall & Briscoe's cellar is dug for No. 1 Lindsay, NE cor. SE NW, Section 14-11-3w. Indian Territory Illuminating Oil Co. and others made location for No. 1 Drake, NE cor. SE SE, Section 14-11-3w. Location was made for No. 3 Drake, SE cor., Section 14-11-3w. No. 1 Unsell-Krager is a location, NE cor., Section 23-11-3w. Location for No. 5 A. Bodine was made NE cor. SE, Section 24-11-3w. Location was staked for No. 6 A. Bodine, SE cor. NE SE, Section 24-11-3w. T. B. Slick made location for No. 1 B. Banta, SE cor. SW SE, Section 18-11-2w. Location for No. 2 B. Banta was made NE cor. SW SE, Section 18-11-2w. Indian Territory Illuminating Oil Co. and others made location for No. 3 Button, NW cor. SW, Section 19-14-2w. Location for No. 4 Button, NW cor. SW SW, Section 19-11-2w, has been made also. The Prairie Oil & Gas Co. and T. B. Slick's No. 5 Hiddleston, NW cor. SW SE, Section 19-11-2w, is a rig under construction. Indian Territory Illuminating Oil Co. and others made location for No. 2 L. Canfield, NE cor. SE SW, Section 19-11-2w. Location has been made for No. 3 N. Emmerson, SW cor., Section 30-11-2w. No. 4 N. Emmerson, SE cor. SW, Section 30-11-2w, is a location. Indian Territory Illuminating Oil Co. made location for No. 1 Jones, NW cor., Section 31-11-2w. Location has been made for No. 2 Jones, NE cor. NW, Section 31-11-2w.

Wirt Franklin Petroleum Corp., Cromwell and others' No. 1 Trosper Park, C SE NW, Section 13-11-3w, has been completed for 8,662 bbls. in lime 6,202-6,504 feet. Coline Oil Co.'s No. 1 Olds, C SE NW, Section 24-11-3w, made 4,998 bbls. in pay 6,316-20 feet. Indian Territory Illuminating Oil Co. and others' No. 2 A. Bodine, SW cor. NE SE, Section 24-11-3w, has been completed for 3,443 bbls. in lime 6,178-6,536 feet. Mid-Kansas Oil Co.'s No. 1 Fortson, C SW NE, Section 24-11-3w, made 3,858 bbls. in lime 6,168-6,589 feet. No. 2 Fortson, C NW NE, Section 24-11-3w, has been completed in lime 6,198-6,540 feet for 5,705 bbls. Indian Territory Illuminating Oil Co.'s No. 1 Button, SW cor., Section 19-11-2w, made 5,756 bbls. in lime 6,143-6,532 feet. Shell Petroleum Corp.'s No. 1 Petty, NW cor. NE, Section 30-11-2w, made 9,506 bbls. in lime 6,197-6,500 feet. Wirt Franklin Petroleum Corp. and others' No. 2 Lowery, C E half W half NW, Section 12-11-3w, was completed for 6,068 bbls. in sand 6,360-83 feet.

Osage County

Peters Petroleum Corp. and Producers & Refiners Corp. moved the rig in for No. 1, SE cor. NE, Section 10-26-8. Location has been made for No. 4, NW cor. SW NW, Section 11-26-8. Union Oil & Mining Co.'s No. 2, SW cor. SE NW, Section 32-23-10, is rigging up. Clint Moore Estate and others' No. 23, SW cor. SE SW, Section 9-21-9, is a machine. Oklahoma Power & Water Co.'s No. 121 NW cor. NE SW, Section 4-20-10, is spudding. Sand Springs Home's No. 4 CSL N half S half NW, Section 29-20-11, is spudding.

Peters Petroleum Corp. and others' No. 12, SW cor. NE NW, Section 17-27-6, has been completed for 30 bbls. in Burbank sand 2,939-2,990 feet. No. 11 NW cor. NE NW, Section 26-25-9, made 75 bbls. in Bartlesville sand 2,114-90 feet. Indian Territory Illuminating Oil Co.'s No. 406, NW cor. SE SE NW, Section 30-25-8, has been completed for 2,500,000 feet of gas in lime 1,909-21 feet. Union Oil & Mining Co.'s No. 1, SE cor. NW, Section 32-23-10, is running 17 bbls. in Siliceous lime 2,513-28 feet. White Eagle Oil & Refining Co.'s No. 1, SW cor. NE SW, Section 28-21-11, is dry and abandoned at 2,387 feet.

Pawnee County

J. H. Markham Jr., No. 6 Hull, NE cor. NW NE, Section 23-21-7, is drilling at 600 feet. Bert Swift's No. 5 Smelzer, CNL SE NW, Section 35-20-9, is drilling at 900 feet. Peerless Oil & Refining Co. and Carter Oil Co.'s No. 1 Rigby, C SE SE, Section 17-20-9, is dry and abandoned at 2,794 feet in Wilcox sand. John Byrnes' No. 5 Edmiston, CWL NE NW, Section 31-21-9, has been abandoned at 2,450 feet.

Pontotoc County

Benedum & Trees moved the rig in for No. 1 Browall, SE cor. NE NW, Section 31-5-5, Bebee area. No. 2 Lowery, NW cor. SW NE, Section 31-5-5, is also a rig on the ground. No. 1 Molly, SE cor. SW, Section 30-5-5, has been completed for 183 bbls. at 2,708 feet. Dixie Oil Co.'s No. 2 Herman, NE cor. SE SE, Section 1-4-7, made 100 bbls. in sand 2,008-15 feet.

Pottawatomie County

G. C. Langstreth moved the rig in for No. 1 Townsite, Block 20, Lot 11, CEL W half SW NW, Section 8-9-5, Earlsboro Pool. Barrett, Brown & Carnahan's No. 1 Earlsboro Townsite, Lot 4, Block 3, CEL NW SE NW, Section 8-9-5, is rigging up. James Guinn is erecting the rig for No. 1 Townsite, Block 10, NE cor SW NW, Section 8-9-5. Skelly Oil Co. is building the rig for No. 2 Decker, SW cor. NW SW, Section 16-7-4, Pearson area. Magnolia Petroleum Co. is building the rig for No. 1 Denton, NE cor. NW SW, Section 22-7-4. Independent Oil & Gas Co. and Twin State Oil Co. made location for No. 2 Gardiner, NW cor. SW SE, Section 19-6-4, Asher Pool. Empire Oil & Refining Co.'s No. 1 Keys, SE cor., Section 6-9-5, Earlsboro Pool, has been completed for 40 bbls. in Wilcox sand 4,290-4,303 feet.

Twin State Oil Co.'s No. 1 Magruder, NE cor., Section 7-9-5, made 765 bbls. in Wilcox sand 4,312-25 feet. Marquette Oil Co.'s No. 1 Thorn, NE cor., Section 36-8-4, is dry and abandoned at 4,480 feet in Wilcox sand. Barnsdall Oil Co. and Indian Territory Illuminating Oil Co.'s No. 1 School Land, SE cor. SW SW, Section 16-8-5, Maud Pool, has been abandoned at 4,304 feet. Independent Oil & Gas Co.'s No. 4 Borrow, NW cor. NE NW, Section 1-7-4, St. Louis Pool, swabbed 585 bbls. in Simpson sand 4,167-4,232 feet. Independent Oil & Gas Co. and Westland Oil Co.'s No. 1 L. Booze, SW cor. NE SE, Section 9-7-4, swabbed 48 bbls. at 4,240 feet after plugging back from 4,255 feet. Mid-Continent Petroleum Corp.'s No. 1 Robbins, SW cor. SE SW, Section 9-7-4, pumped 15 bbls. in Simpson sand 4,050-64 feet. Skelly Oil Co.'s No. 1 Decker, NW cor. SW, Section 16-7-4, flowed 1,319 bbls. in Simpson sand 4,090-4,126 feet. Independent Oil & Gas Co.'s No. 2 Pappan, SE cor., Section 16-7-4, has been completed for 625 bbls. at 4,151 feet. T. B. Slick and White Eagle Oil & Refining Co.'s No. 2 Latimer, NE cor. SW NW, Section 16-7-4, flowed and swabbed 275 bbls. at 4,160 feet in Simpson sand. The Prairie Oil & Gas Co.'s No. 2 Rice, SE cor. SW NE, Section 17-7-4, has been completed for 1,415 bbls. in Simpson sand 4,116-53 feet. The Prairie Oil & Gas Co. and T. B. Slick's No. 7 Laster, NW cor. SW NE, Section 19-6-4, Asher Pool, made 2,315 bbls. in Viola lime 3,637-60 feet. Simms Oil Co.'s No. 1 Pappan, NW cor. NE NE, Section 29-6-4, is dry and abandoned at 3,809 feet.

Seminole County

Magnolia Petroleum Co. made location for No. 1 Harjo, NW cor. SE, Section 13-5-7. Flake & Wilson's rig is up for No. 1 Douglas, SE cor. SW NE, Section 30-8-8. The Texas Company made location for No. 3 Chi'coat, SE cor. SW NW, Section 4-7-7. Ligon and others' No. 1 Ligon, NW cor. SE, Section 25-8-7, is a rig. Minnehoma Oil Co. is erecting the rig for No. 3 Noe, NW cor., Section 17-9-6. Burke-Greis Oil Co. has the cellar dug for No. 2 Jones, SW cor., Section 17-9-6. Gypsy Oil Co. and Devonian Oil Co. moved the rig in for No. 10 Payne, SE cor., Section 18-9-6. Magnolia Petroleum Co. made location for No. 3 Panos, NE cor., Section 18-9-6. Location has been made for No. 3 Moore, SE cor. NE SE, Section 24-9-5. Continental Oil Co. made location for No. 1 Maguire, NE cor. SE SE, Section 24-9-5. Mid-Continent Petroleum Corp. made location for No. 1 McDaniels, SE cor. SW, Section 7-9-6. Barnsdall Oil Co.'s No. 1 Johnson, SE cor., Section 22-10-6, made 83 bbls. in Hunton lime 4,302-03 feet. Gypsy Oil Co.'s No. 2 Nevins, NW cor. SE, Section 32-10-6, is dry and abandoned at 4,455 feet in Wilcox sand. Amerada Petroleum Corp.'s No. 1 Sullivan, SW cor. NW, Section 17-9-6, made 3,540 bbls. in Wilcox sand 4,260-83 feet. Pure Oil Co.'s No. 1 Naifeh, NE cor. SW, Section 15-9-7, has been completed for 7,000,000 feet of gas in sand 3,579-3,624 feet. Sinclair Oil & Gas Co.'s No. 1 Johnson "B", SE cor. SW NW, Section 18-9-7, made 110 bbls. at 4,135 feet after plugging back from 4,452 feet. No. 1 G. Johnson, SE cor. NE NW, Section 18-9-7, drilled to 4,239 feet, plugged back to 4,070 feet and made 305 bbls.

The Prairie Oil & Gas Co. is erecting the rig for No. 5 Talley, SW cor. SE SW, Section 14-7-6, Little River Pool. Location has been made for No. 4 Harris, NW cor. NE SW, Section 14-7-6.

Sinclair Oil & Gas Co.'s No. 2 B. Coody, NW cor. SW NE, Section 18-9-7, East Seminole Pool, flowed and swabbed 765 bbls. from Wilcox sand 4,267-79 feet. Gypsy Oil Co.'s No. 4 Mission, SE cor. SW SW, Section 5-8-6, is dry and abandoned at 4,511 feet. Barnsdall Oil Co. and Indian Territory Illuminating Oil Co.'s No. 2 Tully, SE cor. NE NE, Section 10-8-5, Carr City Pool, has been completed for 160 bbls. at 4,198 feet after plugging back from 4,223 feet in Wilcox sand. Sinclair Oil & Gas Co.'s No. 4 Bean, NE cor. NW NW, Section 11-8-5, made 300 bbls. in Wilcox sand 4,242 feet. No. 1 Blanton, SE cor. SW NW, Section 11-7-6, Little River Pool, is dry and abandoned at 4,570 feet in Wilcox sand. Independent Oil & Gas Co.'s No. 7 Davis, CEL W half SW SW, Section 13-7-6, drilled to 3,256 feet in Cromwell sand topped at 3,216 feet and made 183 bbls. No. 10 Harris, NW cor. SE NW, Section 23-7-6, drilled to 3,217 feet, plugged back to 3,202 feet and pumped 50 bbls. No. 11 Harris, SE cor. NW NW, Section 23-7-6, was completed for 140 bbls. at 3,207 feet. No. 12 Harris, NE cor. NW NW, Section 23-7-6, flowed 618 bbls. from sand 3,134-43 feet. Sinclair Oil & Gas Co.'s No. 3 Phillips, SW cor. NE SE, Section 5-7-7, made 2,960 bbls. in Wilcox sand 4,220-43 feet. The Prairie Oil & Gas Co.'s No. 1 Osborn, NW cor. SE SE, Section 34-7-6, has been abandoned at 4,445 feet in Wilcox sand.

Stephens County

Denver & Wichita Falls Pipe Line Co.'s No. 1 Allen, NE cor. SE, Section 35-1-9w, has been abandoned at 2,571 feet. George Page's No. 1 Enloe, NE cor. NW SW SE, Section 21-2s-7w, is pumping 35 bbls. from sand 1,720-28 feet. Dean & Adkinson's No. 1 Kent, NW cor., Section 6-5s-14w, is dry and abandoned at 2,004 feet.

Creek County

J. Winemiller and others' No. 1 Graves NE cor. SW, Section 21-18-8, is rigging up. Magnolia Petroleum Co.'s No. 6 Derrisaw, CWL NW SW, Section 6-17-7, is preparing to deepen from 2,377 feet. Shell Petroleum Corp. has the rig up for No. 5 Bruce, SW cor. NW NE, Section 19-17-9. Sunray Oil Co. and C. O. Buckles' No. 1-A McIntosh, NE cor. NW, Section 30-17-9, is rigging up. Central Commercial Oil Co.'s No. 1 Jones, NE cor., Section 9-17-10, is rigging up. R. O. Bailey's No. 6 Fulsom, SW cor. NW SW, Section 13-17-10, is drilling at 360 feet. A. B. Lee's No. 7 Fulsom, NW cor. SW SW, Section 13-17-10, is drilling at 1,100 feet. H. W. Lampton's No. 1-A Webb, NE cor. SW, Section 24-17-11, is spudding. Beal & Plumb's No. 2 Walker, SE cor. NE NW, Section 26-18-9, has been completed for 20 bbls. in sand 1,972-2,020 feet. S. P. Smith and others' No. 3 Maloney, C SW NW, Section 19-18-11, has been completed for 3 bbls. in sand 645-703 feet. Magnolia Petroleum Co.'s No. 11 Lewis, SE cor. SW SW, Section 27-17-7, made 15 bbls. in sand 2,385-2,430 feet. Carter Oil Co.'s No. 7 Durant SE cor. SW NE, Section 18-16-9, is dry and abandoned at 3,584 feet. Ed O'Rourke and others' No. 1 Hunts, NW cor. SW SE, Section 16-16-10, has been completed for 18 bbls. in sand 2,940-57 feet. West Virginia Drilling Co.'s No. 2 Patrick, SE cor. SW NW, Section 16-16-10, has been abandoned at 2,940 feet.

Lincoln County

Ed Jilson and R. Kemp made location for No. 1 School Land, SW cor. SE, Section 16-17-5.

Logan County

Sinclair Oil & Gas Co.'s No. 1 Murphy, SW cor. SE, Section 17-19-4w, is dry and abandoned at 6,245 feet. Shell Petroleum Corp.'s No. 3 Ross "B", NE cor. SE, Section 19-19-4w, Roxana Pool, made a 35-bbl. well at 6,097 feet.

Grant County

Gypsy Oil Co. made location for No. 1 Bilderback, SE cor., Section 27-28-7w. Otstot Development Co. made location for

No. 1 Tapor, NE cor. SE, Section 23-26-3w. Gypsy Oil Co.'s No. 1 Gibson, NW cor. NE, Section 17-29-4w, has been completed for 41 bbls. in Wilcox sand at 4,861 feet after plugging back from 4,868 feet.

Major County

Wilson and others' No. 1 Creech, NE cor. SW, Section 4-23-16w, has been abandoned at 510 feet.

Muskogee County

H. L. Jolly moved a machine to the location for No. 1 Muskogee Townsite, Lot 12, Block 309, SE cor. NW SW NW, Section 35-15-18. C. H. Lammers and others' No. 1 Muskogee Townsite, Lots 1, 2 and 3, Block 325, SW cor. NW SE, Section 35-15-18, is drilling at 90 feet. W. J. Metzger and others' No. 1 Muskogee Townsite, Lots 10, 11, and 12, Block 332, SE cor. NW NW, Section 35-15-18, is rigging up. The machine is on the ground for No. 10 L. Francis, SE cor. NW SW SW, Section 1-14-18.

Okfuskee County

H. G. Fair and others' No. 1 Luster, NW cor. SW NE, Section 36-13-11, is drilling at 650 feet. Barnsdall Oil Co. has the rig on the ground for No. 1 Simmers, SE cor. NW, Section 32-12-10. J. L. Shelby made location for No. 5 Alexander, CEL NW NE, Section 9-12-11. Walker and others' No. 1-A Tarvin, CEL SE NW, Section 3-11-11, is rigging up. Mid-Continent Petroleum Corp. has the rig up for No. 4 D. Dindy "B", NW cor. SW NE, Section 31-11-11. H. H. Diamond Oil Co.'s No. 1 Rogers, NW cor. SE NW, Section 10-11-12. Independent Oil & Gas Co. and Kingwood Oil Co.'s No. 2 Lowe, SW cor. NE NW, Section 22-10-11, is drilling at 1,000 feet.

R. W. Vierson and others' No. 1 Barnett, NW cor. NE, Section 9-10-11, has been abandoned at 3,063 feet. Jarvis & Holm's No. 2 Fier, SW cor. SE SW, Section 16-10-11, has been completed for 13,000,000 feet of gas in sand 2,557-65 feet.

Okmulgee County

M. E. Wheeler has the rig up for No. 2 J. Scott, SE cor. NE SW, Section 34-14-11. J. L. Selby's No. 35 A. Anderson, CEL NE NW, Section 35-14-14, is drilling at 500 feet. Berry and others' No. 1 Tucker, SE cor. NW, Section 2-13-14, is rigging up. I. L. Levine's No. 1 Holcomb, SW cor. NW SE, Section 24-14-12, has been abandoned at 2,700 feet. Kessler Petroleum Co.'s No. 2 M. Mickens, SW cor. SE, Section 28-13-13, made 12 bbls. at 2,035 feet. E. J. Lambert's No. 1 Stieger, CEL NW SW, Section 7-13-15, is dry and abandoned at 2,225 feet.

Payne County

Deep Rock Oil & Gas Co.'s No. 2 Cole, SE cor. NE, Section 10-18-4, is a dry hole at 4,092 feet. Shaffer Oil & Refining Co.'s No. 2 Little Chief, SW cor. NW NE, Section 4-18-5, made 855 bbls. in Wilcox sand 3,482-3,534 feet. Twin State Oil Co.'s No. 2 Goff, SW cor. NE SW, Section 7-18-5, made 20 bbls. in sand 2,817-37 feet.

Tulsa County

A. G. Oliphant's No. 1 Phelps, SE cor. NE NW, Section 22-17-13, is drilling at 200 feet. H. R. Johnson's No. 1 Fox, NE cor. NW NW, Section 22-16-13, is drilling at 250 feet. North and others' No. 1-A Jensen, CNL SW, Section 24-19-13, has been abandoned at 1,523 feet.

Wagoner County

R. Kenworthy and others' No. 1 Smith, NE cor. SE NW SW, Section 25-16-17, is drilling at 650 feet. Cherokee Public Service Co.'s No. 1 Smith, NE cor. NW SW SW, Section 36-16-17, is drilling at 100 feet. C. F. Finefield has a machine on the ground for No. 8 Vann, CNL SW, Section 22-16-19. Horner and others' No. 2 Pitts, CWL E half SE SW, Section 6-17-18, is dry and abandoned at 850 feet.

PRODUCTION OF ST. LOUIS POOL

Average daily production for the St. Louis Pool for the week ending September 9:

Company, farm—	Location	Wells	Prod.
Amerada:			
Richardson	16-7-4	1	25
Atlantic:			
Burke	16-7-4	3	393
Bass	9-7-4	1	202
Mildrum	15-7-4	1	116
Bewley	9-7-4	1	43
Atlantic-Darby:			
Standridge	10-7-4	1	28
Barnsdall:			
Stahl	30-7-4	3	565
Blackwell:			
Cherry	25-7-4	3	451
Lewis	24-7-4	2	119
Carter:			
Adkin	2-7-4	1	...
McGee	26-7-4	1	25
Darby:			
Harber	23-7-4	1	35
Nixon	9-7-4	2	101
Youngblood	16-7-4	4	690
Cardwell	15-7-4	1	353
Empire:			
Bettis	17-7-4	1	246
Jackson	36-8-4	1	238
State	36-7-4	1	155
Gypsy:			
Bruno	25-7-4	4	79
Collins	25-7-4	4	535
Dolson	26-7-4	4	126
Green	17-7-4	4	746
Johnson	29-7-4	1	12
LeClair	23-7-4	4	1,526
Rosemond, No. 1	26-7-4	4	450
Stahl	30-7-4	8	161
Healdton:			
Hines	17-7-4	1	112
Home Gas Co.:			
St. Louis	14-7-4	1	267
Honton Oil:			
Wyatt	17-7-4	3	1,440
Independent:			
Barrow	1-7-4	3	781
Blandin	30-7-4	5	679
Youts	19-7-4	8	4,521
Independent-Darby:			
Brown	14-7-4	2	11
Carson	23-7-4	1	Off
Curley	22-7-4	1	4
Davis	15-7-4	1	Off
Freid	23-7-4	2	90
Jordon	10-7-4	1	25
LeClair	23-7-4	1	65
Pappan	16-7-4	2	944
Pillar	15-7-4	1	8
Standridge	14-7-4	3	28
Wallace	14-7-4	4	91
Independent et al:			
Hambry	14-7-4	2	22
Was	30-7-5	1	28
Independent-Range:			
Null	35-8-4	1	285
Independent-Skelly:			
James	16-7-4	2	368
Independent-Westland:			
Booze	9-7-4	1	38
Rhodd	16-7-4	4	988
I. T. I. O.:			
McGee	26-7-4	1	181
Shobe	35-8-4	2	107
Weams	21-7-5	1	81
I. T. I. O.- Sinclair:			
Woodard	18-7-5	1	50
Inter-Ocean:			
Coley	24-7-4	1	17
McGee	23-7-4	6	259
Irvin & Marten:			
Kelly	2-7-4	3	963
Magnolia:			
Banta	14-7-4	3	295
Billington, C.	11-7-4	1	9
Brandenburg	18-7-5	5	1,199
Bullock	18-7-5	1	1
Caudle	13-7-4	2	125
Cherry "A"	25-7-4	5	606
Cherry "B"	26-7-4	3	228
Clour	11-7-4	2	18
Davis, C. E.	24-7-4	1	9
Davis, Frank	15-7-4	2	12
Engle	34-7-4	1	60
Fyke, Geo. "A"	20-7-5	1	295
Fyke, Geo. "B"	20-7-5	2	188
Fyke, L. L.	20-7-5	1	9
Fyke, Tulle "A"	20-7-5	1	83
Fyke, Tulle "B"	20-7-5	2	119
Fyke, Tulle "C"	20-7-5	1	38
Fyke, Tulle "D"	20-7-5	2	233
Fyke, Tulle "E"	20-7-5	1	10
Green, B. M.	13-7-4	1	7
Green, Lulla	13-7-4	1	Off
Guinn	20-7-5	1	24
Harden	12-7-4	2	243
Hatcock, C. D.	11-7-4	1	9
Hatcock, Lee	11-7-4	1	74
Harper, J. J.	19-7-5	1	7
Harper, James	19-7-5	2	4
Hembree	19-7-5	4	198
Jones "A"	18-7-4	1	85
Kiner	17-7-5	1	3
Latimer	17-7-4	2	256
Louis, J. L.	15-7-4	1	10
Mull	15-7-4	1	10
Nicklass	31-7-5	2	70
Nona	11-7-4	1	49
Pugh	7-7-5	1	Off
Richardson	17-7-4	2	275
Rienhoover	14-7-4	4	9
Robbins, J. M.	15-7-4	4	178
Robbins, Pearl	15-7-4	1	49
Rowe, I.	18-7-5	1	18
Rowe, M.	18-7-5	1	5
Shipshewano	19-7-5	4	65
Singletary, D.	15-7-4	1	25
Singletary, F.	23-7-4	3	21
Singletary, T.	14-7-4	3	39
Tartar	15-7-4	1	214
Vieux, F.	13-7-4	1	10
Vieux, N.	13-7-4	1	1
White, Roy	20-7-5	1	7
Wilborn, Mary	24-7-4	2	385
Wilborn, S. A.	24-7-4	6	913
Youts, Chas.	20-7-5	5	289
Younts, C. A.	19-7-5	4	453
Younts, H. E.	20-7-5	7	2,076
Magnolia-Pierce:			
Hubanks	17-7-4	2	972
McCulloch, et al:			
Bruno	25-7-4	5	891
Smith	25-7-4	6	863
Mid-Continent:			
Decker	8-7-4	1	82
Robbins	9-7-4	2	35
Quinn	20-7-5	1	20
Mid-Kansas:			
Getzelman	25-7-4	4	820
Lunay	30-7-5	3	360
Minnehoma:			
Simms	16-7-4	2	655
Packard:			
Church	29-7-5	1	560
Panther:			
Town Lot	14-7-4	3	165
Phillips:			
Cherry	25-7-4	2	118
Grace	2-7-4	1	65
Lydick	24-7-4	1	23
Stahl	30-7-5	4	485
Prairie:			
Desmond	25-7-4	4	86
Ellison	25-7-4	4	314
Gammon	30-7-5	8	2,601
Hembree, A. O.	19-7-5	4	1,543
Hembree	18-7-5	1	14
Linn	30-7-5	4	589
Smith	30-7-5	2	50
Wolf	29-7-5	4	2,001
Younts	19-7-5	4	213
Prairie et al:			
Davis	18-7-5	4	72
Nesbit	18-7-5	2	245
Pugh	7-7-5	1	21
Prairie-Shaffer-Indep.:			
Cummings	17-7-4	2	568
Regan	17-7-4	2	3,841
Rice	17-7-4	3	591
Pure:			
Dodson	26-7-4	2	106
Thomas	26-7-4	4	4,655
Thrilkill	19-7-5	1	61
Tolen	1-7-4	1	117
Shaffer O. & R.:			
Cherry	23-7-4	4	137
Tolen	30-7-5	4	407
Shell:			
Smith	21-7-3	1	83
Stahl	30-7-5	1	50
Younts	28-7-5	1	20
Sinclair:			
Blandin	24-7-4	13	875
Brandenburg	7-7-5	3	750
Bruno	28-7-4	2	750
Coley	24-7-4	2	292
Gilbreath	25-7-4	2	825
M-Qua-Ka	11-7-4	1	206
Nadash	29-7-5	4	415
Neeley	25-7-4	6	530
Neeley "B"	25-7-4	2	620
Nesbit	18-7-5	8	1,620
O Kitchee	19-7-5	7	645
Sinclair et al:			
Kelly "A"	2-7-4	1	385
Decker	16-7-4	1	916
Slick-White Eagle:			
Latimer	16-7-4	1	456
Superior:			
Caudle	24-7-4	2	50
Jackson	36-8-4	1	75
Texas:			
Cherry	25-7-4	4	465
Zoeller	30-7-5	1	30
Tidal:			
Smith	26-7-4	1	20
Warner-Quinlan:			
Light	18-7-4	1	100
Westheimer-Daube:			
Freid	24-7-4	5	565
Garrett	23-7-4	2	68
Westheimer-Daube-Gypsy:			
McGee	23-7-4	5	113
Wyatt:			
Fee	10-7-4	1	20
Total		421	64,831

Asher Pool

Company, farm—	Location	Wells	Prod.
Commerce Devel. Co.:			
Townsite	19-6-4	1	75
Independent:			
Gardiner	19-6-4	1	176
Prairie-Slick:			
Laster	19-6-4	5	5,611
Simms:			
Laster	19-6-4	2	4,753
Slick:			
Bledsoe	20-6-4	1	52
Alexander	19-6-4	1	212
Weldon	20-6-4	2	164
Slick-Amerada:			
Welker No. 1	19-6-4	1	195
Texola:			
Townsite	19-6-4	1	40
Total		16	11,278

Sasakwa Pool

Company, farm—	Location	Wells	Prod.
Carter:			
Phillips	18-6-8	1	56
Spillman	7-6-8	1	14
Prairie:			
Patton	18-6-8	1	Off
Shell:			
Holatka	7-6-8	1	1,420
Signal:			
Bond	13-6-7	1	112
Sinclair:			
Davis "A"	7-6-8	4	4,730
Texas:			
Bryan	9-6-8	1	56
Twin State:			
Marshall	6-6-8	1	Off
Total		12	6,388

PRODUCTION OF SEMINOLE POOL

Average daily production of the Seminole area for the week ending September 9:

Little River Pool

Company, farm—	Location	Wells	Prod.
Amerada:			
Hotulke	22-7-6	1	...
Nitey	2-7-6	3	272
Amerada-Wilcox:			
Fore	35-8-6	2	487
Barnsdall:			
Cotcha	23-7-6	3	890
Hotulke	22-7-6	3	626
Walker	4-7-6	1	10
Blackwell:			
Baker	11-7-6	4	832
Nitey	35-8-6	5	202
Talley	14-7-6	4	1,243
Thomas	11-7-6	1	Off
Bryan & Emery:			
Walker	4-7-6	1	12
Carter:			
Cotcha, M.	23-7-6	3	54
Cudjo, L.	23-7-6	3	274
Factor	26-7-6	1	28
Fish	36-8-6	4	526
Harjo, C.	11-7-6	3	2,220
Harjo, M.	13-7-6	4	444
Jackson	11-7-6	4	553
Larney, B.	26-7-6	2	351
Larney, J.	24-7-6	4	1,443
Lena	10-7-6	1	413
Moore	11-7-6	2	70
Tewee	14-7-6	6	663
Thomas	11-7-6	1	322
Walker, J.	24-7-6	1	828
Wilson	12-7-6	1	188
Champlin:			
Tewee	14-7-6	2	1,093
Continental:			
Cosar	36-8-6	7	837
Cosar, M.	25-8-6	1	253
Continental & Fisher:			
Milsey	11-7-6	2	336
Continental & Shaffer:			
Harrison	4-7-7	3	1,746
Empire:			
Charty	24-7-6	1	63
Coker	13-7-6	2	427
Cotcha	27-7-6	2	24
Sandlin	3-7-6	1	10
Gypsy:			
Brown, C.	33-8-6	2	335
Brown, M.	33-8-6	1	609
Campbell	33-7-6	1	7
Conard	22-7-6	2	184
Cosar, W.	36-8-6	2	142
Cotcha	23-7-6	13	2,492
Denmark	11-7-6	3	619
Hulhoke	14-7-6	10	732
Mungee	1-7-6	1	Off
Payne	5-7-7	5	3,084
Pottie	35-8-6	4	224
Renton	11-7-6	3	433
Walker	5-7-7	1	651
Independent:			
Carpenter	27-7-6	3	375
Davis, R.	13-7-6	7	1,402
Reed	26-7-6	1	8
Tewee	14-7-6	6	1,201
Williams	15-7-6	1	394
Independent & Highway:			
Harris	23-7-6	13	2,520
Indep. & White Eagle:			
Davis	2-7-6	4	500
I. T. I. O.:			
Campbell	1-7-6	1	215
Dungan	35-8-6	3	339
House, M. A.	1-7-6	1	19
House, W. E.	1-7-6	1	662
House "B"	2-7-6	4	27
Hull	26-8-6	3	337
Jackson	1-7-6	3	264
McCulla	1-7-6	3	623
Nitey	2-7-6	5	126
Phoebe "A"	36-8-6	2	17
Phoebe "B"	36-8-6	3	86
Reed	1-7-6	1	Off
Seketheche	1-7-6	3	102
Magnolia:			
Cruse	2-7-6	4	423
Denby	11-7-6	4	213
Harjo, A.	14-7-6	2	65
Harjo, B.	14-7-6	2	180
Pottie	35-8-6	4	51
Reed, E.	31-8-7	1	38
Reed, I.	22-7-6	3	398
McCulloch & Sands:			
Harrison	4-7-6	1	...
Mid-Continent:			
Brunner	11-7-6	4	129
Eleck	23-7-6	1	38
Smith	5-7-7	10	12,653
Wadsworth	36-8-6	4	56
W. B. Pine:			
Bean	13-7-6	1	180
Hoyecha	26-8-6	7	1,740
Pine-Phillips:			
Pottie	35-8-6	1	60
Prairie:			
Chilcoat	25-8-6	3	513
Coker	1-7-6	2	626
Gibson	14-7-6	5	827
Harris	14-7-6	4	672
Hotuse	2-7-6	4	117
Johnson	24-7-6	3	997
Lustey	5-7-7	2	20
Moppin	24-7-6	2	186
Reed	13-7-6	2	758
Talley	14-7-6	4	639
Thomas	5-7-7	2	1,954
Williams	15-7-6	2	100
Carr	9-7-7	1	304
Wood	26-7-6	1	226
Cudjo	26-7-6	4	560
Prairie & Amerada:			
Sunny	14-7-6	5	806
Pure:			
Brinson	24-7-6	3	1,053
Cotcha	14-7-6	11	2,395
Harjo	11-7-6	4	1,109
Hollins	11-7-6	1	434
Reiter-Foster:			
Bunyard	14-7-6	4	505
Jefferson	31-7-6	1	12
McClain	33-7-6	1	39
Shaeffer:			
Narcombe	36-8-6	2	30
Shell:			
Caesar	11-7-6	1	58
Glass	26-7-6	1	15
Hotulke	23-7-6	5	972
Johnson	13-7-6	4	872
Sinclair:			
Banton	11-7-6	1	409
Cosar	30-8-6	3	781
Haney	12-7-6	1	190
Phillips	5-7-7	3	4,112
Tewee	14-7-6	2	1,270
Sinclair & Kingwood:			
Pompey	24-7-6	1	152
Skelly:			
Carl	14-7-6	2	1,419
Snowden-McSweeney:			
Tiger	13-7-6	2	Off
Superior:			
Potuka	31-8-6	1	9
Texas:			
Brooks	25-8-6	1	7

Company, farm—	Location	Wells	Prod.
Chilcoat	4-7-7	1	746
Coker	1-7-6	3	2
Janey	11-7-6	6	920
Texas & Independent:			
Hutulke	23-7-6	6	1,180
Hutulke	22-7-6	3	460
Tidal:			
House	1-7-6	1	308
Johnson	1-7-6	1	18
Twin State:			
Lowe	25-8-6	1	45
Total		369	81,028

Maud Pool

Amerada:			
Ballard	1-8-4	1	59
Fehlig	7-8-5	1	45
Gossland	8-8-5	3	74
Gravel	1-8-4	1	13
Hallum	1-8-4	4	1,623
Amerada & Barnsdall:			
Wallace	17-8-5	4	250
Amerada & Hull:			
Green	20-8-5	3	111
Continental-Shell:			
Everetts	18-8-5	2	42
Empire:			
Smith	8-8-5	2	838
Gypsy:			
Bourassa	7-8-5	4	58
Gossland		1	955
Miller	18-8-5	8	400
Independent:			
Harding	18-8-5	4	180
I. T. I. O.:			
State	16-8-5	1	67
Laurel O. & G.:			
Billington	18-8-5	3	137
Magnolia:			
Billington	8-8-5	4	48
Green	20-8-5	3	118
Smith	20-8-5	1	78
Mid-Continent:			
Shelton	18-8-5	3	30
Phillips:			
Hudson	19-8-5	4	174
Wallace	17-8-5	2	78
Pine:			
Lingefelt	18-8-5	2	50
Smith	8-8-5	2	470
Prairie:			
Campbell	18-8-5	8	134
Prairie & White Eagle:			
Villines	20-8-5	1	2
Pure:			
Lindly	18-8-5	8	367
Urbansky	19-8-5	2	387
Wiley	8-8-5	4	876
Shell:			
Jordan	9-8-5	2	864
Sinclair:			
Bellars	19-8-5	10	483
Calvin	7-8-6	3	181
Lewis	6-8-5	2	54
Skelly & Lenox:			
Green	20-8-5	1	151
Skelly & Margay:			
Lingefelt	18-8-5	4	178
Texas:			
Calvin	7-8-5	9	205
Tidal:			
Dunn	12-8-4	1	40
Everett	18-8-5	2	57
Smith	8-8-5	1	95
Twin State:			
Calvin	7-8-5	2	100
Wilcox:			
Smith	8-8-5	7	1,571
Total		129	11,643

Mission Pool

Amerada:			
Rice	5-8-6	2	806
Fuswa	18-8-6	3	560
Micco	8-8-6	2	286
Melisse	9-8-6	1	543
Continental:			
Mains	7-8-6	4	1,076
Darby:			
Judy	1-8-5	1	70
Gypsy:			
Baby	6-8-6	1	4
Barkus, N.	6-8-6	10	4,184
Barkus, S.	7-8-6	1	17
Dosar	7-8-6	5	942
Hardy	7-8-6	7	158
Harjoche	7-8-6	3	26
Micco, L.	8-8-6	2	35
Micco, S.	8-8-6	1	2
Mission	5 & 6-8-6	7	1,378
Mosar	1-8-5	4	739
Independent:			
Lawson	1-8-5	5	1,084
Independent & Kistler:			
Payne	7-8-6	4	1,169
McMahon et al:			
Harjo	7-8-6	2	674
Mid-Continent:			
Ripley	13-8-5	1	65
Mid-Kansas:			
Moore	7-8-6	1	Off
Minnehoma:			
Neal	7-8-6	4	537
Pine:			
Harjo	6-8-6	2	605
Micco	8-8-6	1	25
Prairie:			
Crain	7-8-6	1	111
Melton	6-8-6	3	964
Micco	5-8-6	1	5
Townsend	6-8-6	1	951
Nellie	12-8-6	1	108
Prairie & Gypsy:			
Owens	18-8-6	2	331
Shaffer:			
Weaver	12-8-5	2	1,129
Shell & Continental:			
Herndon	7-8-6	3	624
Shell & Papoose:			
Maines	7-8-6	8	826
Sinclair:			
Hardy	7-8-6	4	786
Sinclair & Lenox:			
Judy	1-8-5	1	48
Tidal:			
Nelly	12-8-5	5	1,846
Twin State:			
Hayes	8-8-6	2	1,105
Judy	6-8-6	2	617
Ripley	12-8-5	2	146
Total		112	24,532

Bowlegs Pool

Amerada:			
Roscoe	15-8-6	6	651
Atlantic:			
Baker	10-8-6	4	230
Fleet	23-8-6	3	60
Grayson	13-8-6	3	272
Jones, A.	16-8-6	2	22
Jones, C.	9-8-6	1	30
Barnsdall:			
McNac	28-8-6	1	23
Murrow	11-8-6	4	286
Carter Oil:			
Bowlegs	15-8-6	4	331
Burlen	23-8-6	2	235
Harjoche	14-8-6	6	490
Hilly	23-8-6	3	207
Jones	11-8-6	4	480
Walker	15-8-6	4	394
Wise	23-8-6	11	1,255
Dixie:			
Culley	11-8-6	1	35
Empire:			
Lacy	14-8-6	6	227
Wise	23-8-6	2	139
Gypsy:			
Bowlegs	22-8-6	1	...
Cumsey	10-8-6	4	523
Grayson	13-8-6	4	437
Harjoche	10-8-6	3	270
Jones	11-8-6	1	56
Walker	15-8-6	7	905
Wise	23-8-6	2	137
I. T. I. O.:			
Barnett	24-8-6	1	Off
Barnett "B"	23-8-6	1	10
Billington	22-8-6	3	311
Bowlegs	22-8-6	9	1,964
Davis	13-8-6	4	61
Fay	13-8-6	9	870
Goforth	15-8-6	12	1,300
Livingston	15-8-6	10	1,560
Lizzie	13-8-6	3	380
Walker	15-8-6	8	802
Williams	12-8-6	1	210
Wilmott	15-8-6	4	238
Work	24-8-6	1	53
Youngblood	24-8-6	2	23
Magnolia:			
Davis	13-8-6	3	277
Davis, M.	13-8-6	1	70
Hammond	10-8-6	8	447
Rhodes	12-8-6	5	394
Van Buskirk	9-8-6	4	318
McCulloch:			
Bowlegs	22-8-6	1	53
Mid-Continent:			
Baker	10-8-6	4	156
Smith	12-8-6	6	531
Minnehoma:			
Bowlegs	15-8-6	1	48
Prairie:			
Gahagan	23-8-6	3	227
Harber	10-8-6	8	1,221
Jones, G.	11-8-6	3	340
Jones, N.	3-8-6	1	164
Templeton	12-8-6	4	1,816
Whitney	23-8-6	4	340
Pure Oil:			
Reed	14-8-6	14	2,260
Strother "D"	11 & 14-8-6	4	354
Strother "F"	10-8-6	7	1,665
Shaffer:			
Lacy	14-8-6	3	382
Shell:			
Taylor	16-8-6	5	19
Sinclair:			
Cumsey	10-8-6	4	1,001
Ellen	11-8-6	5	616
Harjo	14-8-6	3	678
Jones	9-8-6	7	270
Taylor	10-8-6	4	656
Taylor, W.	10-8-6	3	518
Walker	22-8-6	4	719
Texas:			
Reed	14-8-6	11	493
Tidal:			
Grayson	13-8-6	4	454
Harjoche	10-8-6	6	824
Total		295	32,788

Earlsboro Pool

Amerada:			
Anderson	15-9-5	2	205
Cowden	4-9-5	7	980
Rogers	3-9-5	2	70
Sullivan	17-9-6	1	3,200
Atlantic & Sinclair:			
Foreman	18-9-5	1	105
Barnsdall:			
Brown	10-9-5	3	839
Bruner, F.	2-9-5	2	175
Bruner, N.	10-9-5	1	153
Cudjo	14-3-5	1	23
Davis, D.	11-9-5	3	94
Davis, J.	11-9-5	4	428
Davis, M.	11-9-5	2	25
Gibson	9-9-5	7	675
Hern	15-9-5	1	1
Ingram	1-9-5	6	281
Noble	18-9-6	2	238
Pack, S.	10-9-5	4	71
Peter	10-9-5	3	51
Sango	1-9-5	2	1,369
Sebalka	15-9-5	1	134
Sullivan, H.	11-9-5	1	3
Sull-Harjo	10-9-5	2	13
Wasutke	12-9-5	3	439
Burke-Greis:			
Wisner	6-9-6	2	156
Burke-Greis & Red Bank:			
Mays	1-9-5	3	1,593
Carter:			
Davis	13-9-5	3	60
James	6-9-6	3	1,250
Carter et al:			
Gilliam	13-9-5	2	1,544
Continental:			
Kays	2-9-5	2	82
Spencer	12-9-5	4	393
Cosden, J. S., Inc.:			
Anderson	13-9-5	1	1,505
Sarber	13-9-5	1	45
Empire:			
Barker	12-9-5	1	37
Edmondson	3-9-5	2	48
Anderson	13-9-5	2	373
Empire & Amerada:			
Bullock	8-9-5	2	610
Amerada:			
Henry	8-9-5	1	1,509
Gypsy:			
Bruner	10-9-5	4	1,003
Keys	5-9-5	1	40
Carter, B.	11-9-5	7	982
Farl	16-9-5	1	13
Hunick	5-9-5	2	1,293
Noble (B)	18-9-6	2	634
Noble	12-9-5	3	593
Payne	18-9-6	5	6,931
Peter	10-9-5	1	66
Sango	1-9-5	11	1,898
State	16-9-5	3	168
Wisner	13-9-5	1	359
Independent:			
Bruner	10-9-5	3	203
Sullivan	10-9-5	2	12
Knapp	8-9-5	2	856
Indep.-Margay:			
Gains	11-9-5	3	82
Magnolia:			
Anderson, A.	18-9-6	5	10,575
Anderson, D. W.	18-9-6	2	5,121
Bryant	9-9-5	6	46
Cowden	4-9-5	1	22
Dixon	12-9-5	1	16
Edmondson	3-9-5	1	4
Germany	30-9-5	1	9
Gilliam	13-9-5	3	2,340
Holmsley	11-9-5	6	6
Hyde	13-9-5	2	12
Ingram	10-9-5	1	14
Lena	10-9-5	3	32
Moore	24-9-5	1	672
Seay	12-9-5	9	156
Simpson	10-9-5	4	168
Sparks	11-9-5	6	89
Sullivan	12-9-5	2	77
Mid-Continent:			
McCumber	9-9-5	4	34
Rogers	5-9-5	4	2,003
Mid-Kansas:			
Anderson	14-9-5	1	30
Minnehoma:			
Noe	17-9-6	1	3,281
Phillips:			
Dunaway	14-9-5	1	20
Reade	8-9-5	1	1,343
Prairie:			
Baker	24-9-5	5	787
Calkins	17-9-6	2	5,284
Davis	13-9-5	3	438
Graham, C.	3-9-5	2	6
Graham, O.	10-9-5	4	690
James	6-9-6	2	...
Raitman	18-9-6	3	6,024
Stilham	11-9-5	9	548
Wisener	18-9-6	1	181
Prairie & Skelly:			
Campbell	6-9-6	7	2,613
Prairie & Whitney:			
Harjo	24-9-5	1	8
Shaffer:			
Clark	1-9-5	2	181
Shell:			
Bayless	17-9-5	1	10
Hearn	13-9-5	1	35
Spencer	12-9-5	2	1,527
Sinclair:			
Alexander	36-10-5	1	840
Foreman	18-9-5	1	15
Hollins	12-9-5	1	...
Miller	24-9-5	1	738
Sango	2-9-5	4	553
Skelly:			
Mays	1-9-5	4	446
Shepard	6-9-6	4	1,812
Spencer	12-9-5	1	197
Skelly & Atlantic:			
Cherry	6-9-6	4	305
Lottie	6-9-6	3	927
Varnum	5-9-6	1	439
Superior:			
Ingram	1-9-5	2	1,024
Sangster	8-9-5	1	902
Walker	2-9-5	2	1,059
McKay	36-10-5	1	30
Texas:			
Anderson	2-9-5	8	120
Brown	10-9-5	8	90
James	6-9-6	2	193
Rogers	5-9-5	5	620
Wilmott	10-9-5	6	50
Tidal:			
Walker	35-10-5	2	1,429
Watkins	9-9-5	7	1,748
Twin States:			
Barker	12-9-5	3	37
Magruder	7-9-5	2	702
Hern	2-9-5	2	50
Wrightsman:			
Green	19-9-6	1	202
Total		323	92,840

Carr City Pool

Amerada:			
Reed	12-8-5	1	72
Barnsdall:			
Coker	11-8-5	9	1,673
Fife	14-8-5	2	156
Tally	10-8-5	1	164
Carter:			
Coker	2-8-5	2	2,048
Empire:			
Cluck	11-8-5	13	3,415
Gypsy:			
Coker	10-8-5	1	6
C. Coker	2-8-5	1	989
Fife	14-8-5	1	15
I. T. I. O.:			
Simpson	10-8-5	1	Off
Tully	10-8-5	1	Off
Magnolia:			
Fee	11-8-5	3	346
Killing	14-8-5	1	5
Prairie:			
Billington	11-8-5	10	1,496
Mitchell	15-8-5	1	84
Sinclair:			
Bean	11-8-5	4	556
Harjo	11-8-5	3	453
Total		56	11,478

East Seminole Pool

Barnsdall:			
Keypaya	7-9-7	1	19
Continental:			
Boeing	17-9-7	1	41
Perry	18-9-7	2	535
Johnson	18-9-7	3	3,633
Devonian:			
Harjo	18-9-7	1	Off
Gypsy Oil Co.:			
Harjo	18-9-7	2	393
Magnolia:			
Drewey	18-9-7	2	26
Prairie:			
Stubbs	18-9-7	2	55
Shaffer:			
Haighler	19-9-7	1	13
Sinclair:			
B. Coody	18-9-7	3	1,995
D. Coody	17-9-7	1	30
B. Johnson	18-9-7	1	151
G. Johnson	18-9-7	1	283
Thompson (B)	18-9-7	1	865
J. Warrior	17-9-7	1	40
S. Warrior	17-9-7	1	60
Total		24	8,139

Seminole Pool

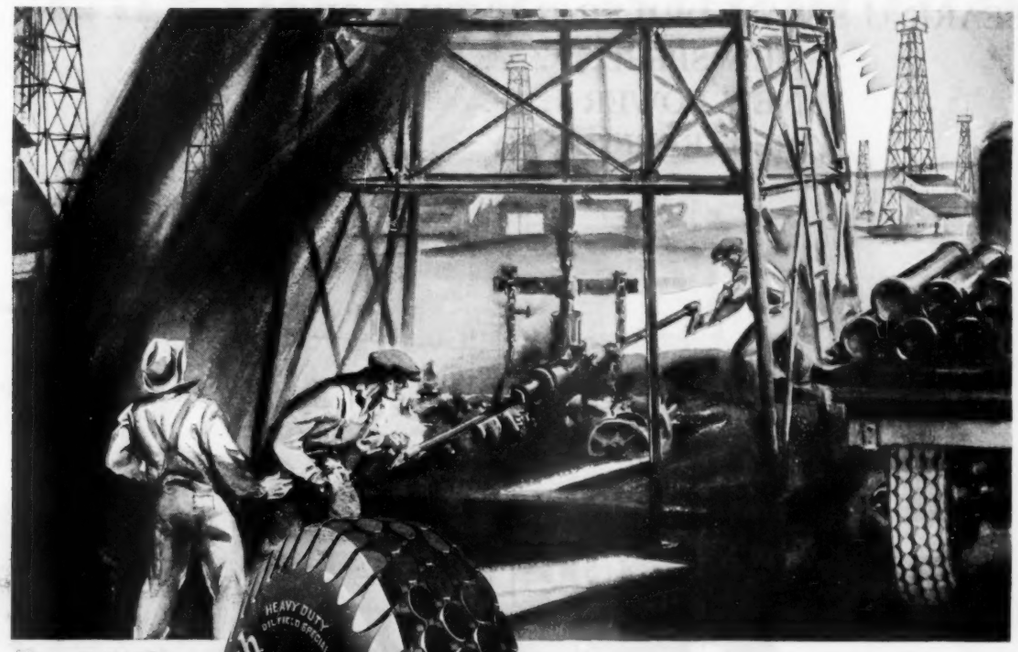
Amerada:			
Fixico	23-9-6	2	72
Killingsworth	23-9-6	4	491
Rentie	23-9-6	3	317
Atlantic:			
Cudjo, N.	35-9-6	3	360
Barnsdall:			
Carter	24-9-6	6	199
Henry	14-9-6	2	468
Jones	34-9-6	4	488
Carter Oil:			
B. Carter	24-9-6	2	37
F. Carter	23-9-6	3	125
Creamer	34-9-6	1	8
Cudjo, R.	35-9-6	4	91
Cudjo, W.	34-9-6	1	91
Gilliland	27-9-6	1	82
Grisso	23-9-6	4	142
Grisso, M.	15-9-6	1	237
Killings, G. F.	14-9-6	4	50
Killings, M. E.	23-9-6	12	4,082
Knapp	13-9-6	1	30
Lukes	27-9-6	5	867
Pounder	34-9-6	2	177
Simpson	35-9-6	2	140
Strothers	34-9-6	4	381
Vierson	23-9-6	1	9
Sanford	16-9-6	1	210
Empire:			
Gross	25-9-6	1	45
Wilson	34-9-6	2	232
Gypsy:			
Butler	35-9-6	4	592
Carter	24-9-6	8	818
Cudjo	34-9-6	4	526
Fixico	26-9-6	7	54
Harjo	25-9-6	3	292
Wolfe	26-9-6	5	549
Independent:			
Fixico, P.	23-9-6	3	470
Harjo	25-9-6	2	31
Butler	35-9-6	3	620
Fixico, T.	26-9-6	5	264
Jones	26-9-6	4	281
I. T. I. O.:			
Allen	25-9-6	2	40
Bowlegs, L.	26-9-6	12	1,101
Goodin	23-9-6	4	178
Harjo	23-9-6	3	56
James	24-9-6	2	50
Reed	24-9-6	1	8
Kingwood:			
Johnson	22-9-6	3	458
Magnolia:			
Boren	2-8-6	1	4
Franks	25-9-6	3	191
Mid-Continent:			
Rentie	14-9-6	9	416
Tayeche	24-9-6	7	156
Phillips:			
Strothers	27-9-6	2	74
Prairie:			
Cudjo	35-9-6	3	554
Franks	35-9-6	6	867
Giblet	35-9-6	3	1,214
Gross	25-9-6	5	26
Mason	46-9-6	1	52
Spencer	13-9-6	1	6
Strothers	27-9-6	8	1,589
Tiger	1-8-6	1	33
Pure Oil:			
Strothers	26-9-6	17	3,901
Strothers, B.	36-9-6	4	659
Strothers, C.	34-9-6	1	352
Shell:			
Harber	22-9-6	1	152
Lasley	22-9-6	2	33
Sinclair:			
Carter	13-9-6	2	20
Cudjo "A"	35-9-6	6	553
Cudjo "B"	35-9-6	4	521
Dicey	22-9-6	2	444
Fixico	23-9-6	4	463
Superior:			
Cudjo	35-9-6	4	80
Noble	15-9-6	1	1
Texas:			
Mayhue	14-9-5	1	20
Strothers	2-9-6	1	55
Tidal:			
Carter	24-9-6	4	227
Fixico	26-9-6	7	1,475
Harjo	25-9-6	1	19
Harjo, T.	23-9-6	3	49
Turman:			
Cudjo	35-9-6	4	496
Grisso	35-9-6	1	294
Jones	34-9-6	4	1,125
Total		272	31,952

Searight Pool

Amerada:			
Johnson	4- 9-6	1	24
Nicey	3- 9-6	1	11
Strothers	3- 9-6	2	214

(Continued on Page 130)

A New Kind of
Oil Field Blow-out Preventer



HIGH pressure areas in oil and gas fields demand specially designed blow-out preventers.

High pressure truck tires demand specially designed tires to meet oil field special road and load conditions. Ordinary tires won't do! For no service is as hard on truck tires as oil field service.

Now Goodrich has designed a special truck tire for oil field service. "Roughnecks" have nicknamed it "The Bulldog of the Great Open Spaces"—for it fights right back at the sun-baked prairies, swamps and cactus!

A tough, sinewy tire with tread shoulders and treads designed like the undershot jaw of a bulldog to give additional traction and wear . . .

And toughened right on down to the innermost ply by the famous Goodrich "water cure". . . these Goodrich Oil Field Specials give oil field superintendents and oil field truck drivers a *new kind of blow-out prevention* . . . blow-out prevention for oil field truck tires!

Specify Goodrich on Your Next Truck

The Goodrich Heavy Duty Silvertown Oil Field Special Tire has:

1. An unusually strong carcass of *reinforced* construction.
2. Rows of "teeth" like the undershot jaw of a bulldog give *added* traction from sides of ruts.
3. Top tread areas equal to assure traction and *even* wear on smooth roads.
4. *Twin* beads fit the tire snugly to rim and help resist "side-roll" wear.
5. The tire toughened *throughout* by the famous Goodrich "water cure."

The Goodrich Silvertown Heavy Duty Oil Field Special Tire. Oil Field insurance against truck tire blow-outs.

Goodrich *Oil Field Special*
HEAVY DUTY Silvertowns

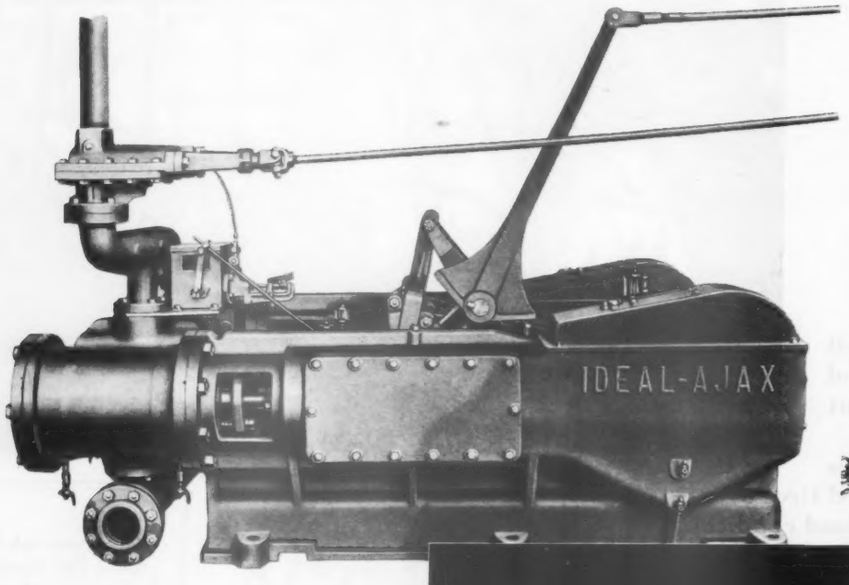
THE B. F. GOODRICH RUBBER COMPANY, *Est. 1870, Akron, Ohio*

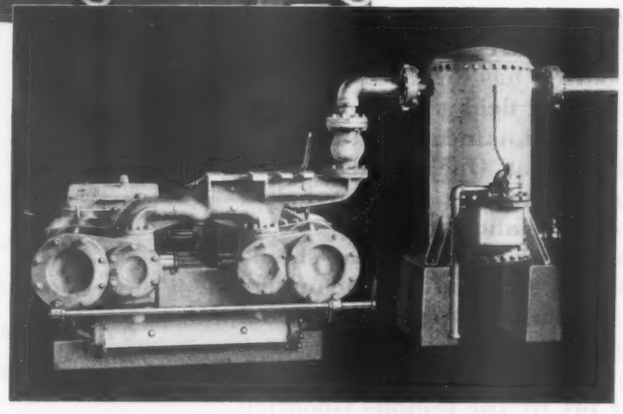
Pacific Goodrich Rubber Co., Los Angeles, Calif. In Canada: Canadian Goodrich Company, Kitchener, Ont.

and NOW

IDEAL-AJAX 12x12 TWIN CYLINDER ROLLER BEARING STEAM DRILLING ENGINE GIVES

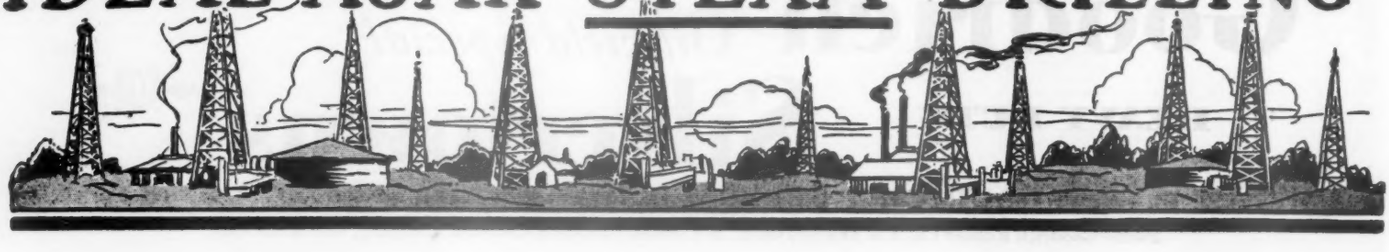
NEW SPEED . . . . . .
NEW POWER . . . . .
NEW EFFICIENCY





With the large separator shown at right, it is not necessary to run the engine slowly four or five minutes to work water out of the exhaust. Water slam and sluggishness caused by water and the wet steam are gone. The dry steam gives the engine "pep" and drilling is speeded up.

IDEAL-AJAX STEAM DRILLING



New AJAX Roller Bearing Engines in Roumania

The first Roller Bearing Steam Engine in Roumania. Twelve "boi" or oxen brought this new power plant equipment to thousands of "boi" up the hill at Boldest in the Astra location.

AJAX ENGINES are now in every oil field in the world, giving day-in and day-out service because of refined design, the best of materials, and the most careful workmanship.

Several models of single and twin engines for cable and rotary drilling.

Made by

AJAX IRON WORKS

Corry, Pa.

DISTRIBUTED BY

THE NATIONAL SUPPLY COMPANIES

NSCO

in every oil field

ENGINES DELIVER POWER-PLUS

EQUIPMENT AND SUPPLIES

NEW WEIGHT CONTROL ADDED TO ALCO LINE

The newest tool placed on the market by the Alco Tool Co. of Compton, Calif., is the automatic weight control which, according to the manufacturer, provides a simple and positive means of maintaining a definite amount of weight on the drill bit at all times and eliminates the need of giving the bit additional weight after it becomes dull. Dull bits are blamed for a large percentage of the crooked holes drilled.

The Alco control is placed in the lower end of the drilling string and so spaced above the bit that the weight of the drill pipe below the control is exactly the weight desired on the bit. When the bit is on the bottom it carries only the weight of the drill collar and pipe between the bit and control, the weight above the control being supported entirely by the drilling mechanism.

If the drill string is lowered too fast, permitting the body of the control to rest on the lower portion or mandrel, a check valve in the control is so arranged that it immediately checks the action of the mud pump.

It is then necessary to raise the upper portion of the drill pipe before circulation can be resumed. This relieves the bit of excessive weight.

DEARBORN DEVELOPS A MINERAL BASE WRAPPER

The Dearborn Chemical Co.'s laboratory and engineering departments have been working for months with other groups interested in the production of a mineral base wrapper for underground application on pipe lines. This has led to the development of No-Ox-Id-Ized asbestos felt wrapper, which is flexible and water proof. It never dries to a cracking point, and does not become powdery under alternating wet, dry, hot or cold exposures, the manufacturers say. This wrapper weighs approximately 1.34 pounds to the yard, and is sold in rolls of 50 lineal yards by 36 inches in width.

Another new development by this company is a heavier No-Ox-Id-Ized fabric wrapper, (gray) which weighs about three-quarters of a pound to the yard, as against a weight of about six-tenths for the No-Ox-Id-Ized fabric wrapper (brown), which has been used for years with success both under and above ground. The heavier fabric wrapper has added physical and chemical properties and will meet extreme soil conditions.

These new wrappers, together with No-Ox-Id "G special," which have been proven in service, will be of interest to field engineers having to cope with extreme soil conditions.

Wagner Electric Corp., St. Louis, Mo., has appointed J. B. Holston as branch manager of the St. Louis sales office. After graduating from the University of Illinois in 1923, Mr. Holston received a thorough training at the Wagner plant as a student engineer.

HAS OIL-IMMERSED CONTACTS

The General Electric Co. announces a new oil-immersed magnetic switch of small capacity, particularly designed for use in gaseous atmospheres such as powder plants, chemical plants or in locations where highly corrosive gases or acids are encountered. The new switch has a capacity of 40 amperes and can be used with any motor, from 110 to 600 volts, the full-load current of which does not exceed this value.

TRADE LITERATURE RECEIVED

Various uses of Oakite in cleaning processes are described in Oakite News Service, published by Oakite Products, Inc., New York.

Besides complete and well illustrated descriptions of valves and other equipment manufactured by the Merco Nordstrom Valve Co., which has sales offices in 12 of the principal cities of the United States, a 142-page catalog being distributed by the company gives much other information that makes it a useful handbook.

The "Buyers' Guide," issued by the International Nickel Co., New York, contains the names of hundreds of manufacturing concerns using nickel alloy steel in making their products.

LINCOLN ENLARGES PLANT

The Lincoln Electric Co., Cleveland, Ohio, manufacturer of "Linc-Weld" motors and "Stable-Arc" welders, has placed contracts for an addition to its plant adding approximately one-half acre more floor space. The new structure will be approximately 200 feet wide and 110 feet long and will house a 65-foot span electric traveling crane. The steel superstructure will be entirely of arc-welded construction.

CLEANSER FOR OIL WORKERS

A hand cleanser adapted for workers in oil fields is offered by the Dajan Chemical Co., New York. According to the company the Cameo hand cleanser not only is effective in removing the grease and grime of the oil field, but it is healing and antiseptic. Distribution in oil-producing regions is being arranged for.

TEXAS BUYS MOTORS

The Electric Machinery Manufacturing Co., Minneapolis, Minn., has sold The Texas Company, 16 synchronous motors totaling 5,750 HP. Eleven high speed motors will be used for driving pumps and five slow-speed motors for driving ammonia and air compressors. Starters of the field "responsive type" will be furnished for all motors.

WAUKESHA UNIT TO VISIT COUNTRY'S OIL FIELDS

The oil industry equipment division of the Waukesha Motor Co., Waukesha, Wis., has initiated an extended advertising and sales campaign which will cover the oil fields of the United States.

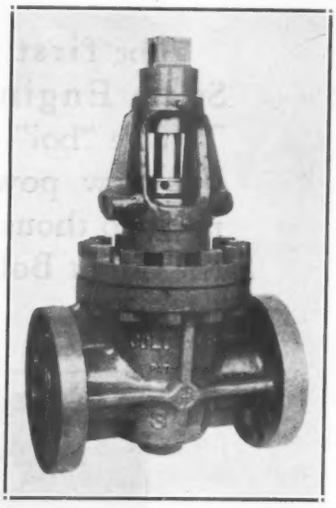
A 2-ton Sterling truck powered by a small Waukesha 6-cylinder engine, carries a new design cable-tool drilling unit made up of an 85-horsepower hour cylinder engine with reversing transmission. All producing fields will be visited by the truck, in charge of an experienced oil field man, contacting with dealers selling Waukesha oil field equipment. The engine, equipped to operate on either natural gas or gasoline, will be operated during demonstration periods on gasoline.

Four sizes of engines are available in the "Type G" design. Seventy and 85-horsepower, 4-cylinder engines are furnished for the shallower territories, and 100 and 120-horsepower, 6-cylinder engines for the heavier duty in deep cable tool drilling. All the above engines are adapted to the same reversing transmission which carries a wide factor of safety in meeting the demands of drilling or "fishing" duty.

Features include a weight of only 5,000 pounds, complete with radiator cooling system; transmission with heavy service brake, double outboard pulley for pump and blower; shooting-reel and measuring line clamp and complete control rods with handle. An oversize clutch running in oil permits severe slipping duty and transmits power through the silent transmission to a Rockwood paper pulley of ample size. Control on the derrick floor is effected by means of a single rod to the transmission with a separate independent pedal on the floor for quick, positive braking action.

COLUMBUS VALVE CORP. MAKES NEW PLUG VALVE

A new type of plug valve has been perfected and tested by the Columbus Valve Manufacturing Corp., Columbus, Ohio, according to J. R. Coffman, vice president and general manager. The valve, which soon will be placed on the



market commercially, is a full round opening high-pressure quarter-turn balanced plug type valve that requires no lubrication and has no springs. It is adaptable where the plug valve is needed. It works as easily under high pressure as under none, according to the manufacturer, and has held up constantly under severe tests. The valve is made in sizes from 2-inch to 6-inch. It is designed for use on gas lines, in oil and gasoline refineries, chemical and power plants, and wherever else plug valves are used.

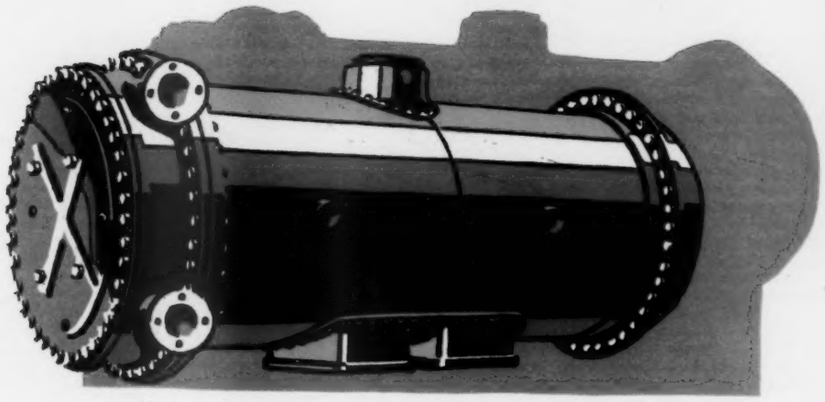
BREWSTER STORE OPENED

The Brewster Co., Inc., of Shreveport, La., has opened a store and warehouse in Houston, Tex. E. B. Franklin is in charge as district manager. C. A. Ricou is manager of the store. The Brewster company manufactures oil specialties, best known of which are the Perfection core barrel and the Brewster A.P.I. tool joints. Other products are drill collars, fish tail and special gumbo bits, special rock bits, and cutter heads for both soft and hard formations.

SAILS FOR VENEZUELA

Charles D. Lockett, South American representative of the International Derrick & Equipment Co., Columbus, Ohio, sailed September 7 for Maracaibo, Venezuela, planning to stop en route in Colombia. Mr. Lockett had been in the United States for his vacation and during his visit spent considerable time in the Columbus and Beaumont plants of the International Derrick & Equipment Co. He has been the representative of Ideco in Venezuela and Colombia for the past year, prior to that time representing his company in the Mid-Continent and Rocky Mountain divisions.

Leaflet 20355-A, issued by the Westinghouse Electric & Manufacturing Co., East Pittsburgh, Pa., describes Type ES, engine driven alternating current synchronous generators.



ENDURO KA2

—for condensers, heat exchangers, and other applications where corrosion is severe

ENDURO KA2 is being widely adopted in the oil, chemical and other process industries, wherever agents must be handled which are quickly destructive to other ferrous materials.

For heat exchangers in the oil field, Enduro KA2 is being used for tubes and tube sheets, due to its ability to successfully resist the destructive action of the sulphur compounds in crudes, and the salt water used for cooling.

Likewise for condensers, digesters, stills, cracking still tubing, acid tanks and pipe, and other applications where corrosion or high temperatures are severe, Enduro KA2 is giving long, economical service.

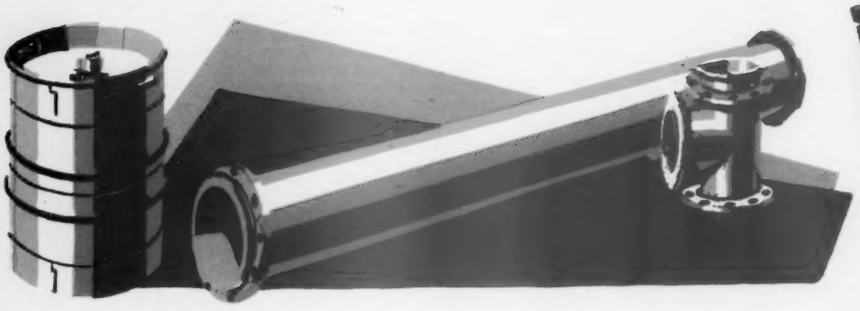
Enduro KA2 meets all important requirements for this service—high corrosion resistance, great strength at high temperatures, and ready workability. It is available in all shapes and forms.

ENDURO
NIROSTA
KA2 STEEL

CENTRAL ALLOY STEEL CORP.
Massillon and Canton, Ohio

LUDLUM STEEL CO.
Watervliet, N. Y.

THE BABCOCK & WILCOX TUBE CO.
85 Liberty St., New York, N. Y.



FOR all industry, Enduro KA2 overcomes many of the major difficulties encountered in the processing, transportation and storage of corrosive agents.

Enduro KA2, properly processed by patented methods developed by Dr. Benno Strauss, is resistant to a wider range of corrosive media than any other alloy.

In addition, this new processing provides extraordinary toughness and ductility, high resistance to impact, unequalled strength at high temperatures—ready workability.

A description of many applications for Enduro KA2 is available in booklet form—as well as complete information relative to the chemical, physical and other properties of this new chrome-nickel-alloy.

Copies of this book will be gladly furnished by the companies below, licensees under the Krupp Nirosta patents, and now producing Enduro KA2 for American industry.

Plates • Sheets • Bars • Strips
Forging Blanks • Shapes
Seamless Pipe and Tubing
Welding Rods • Castings • Wire

ENDURO
NIROSTA
KA2 STEEL

CENTRAL ALLOY STEEL CORP.
Massillon and Canton, Ohio

LUDLUM STEEL CO.
Watervliet, N. Y.

THE BABCOCK & WILCOX TUBE CO.
85 Liberty St., New York, N. Y.

EQUIPMENT AND SUPPLIES

NEW PISTON OFFERED BY BETTIS ENGINEERS

Following the success of Bettis protectors come Bettis pistons, for which the same mix of rubber is used. The same care in designing has been applied, and drastic field tests have been made.

The Bettis piston, manufactured by the Patterson-Ballagh Corp., Los Angeles, Calif., consists of few parts. The steel plates are accurately finished and held in full-floating position by the rubber rings. The two outer rubber rings are anchored securely by steel flanges. The outer rings are tapered inwardly toward the center, which increases the sealing when pressure is applied, assuring full wiping action. Pressure is applied under the center rubber ring, automatically, expanding the rubber on each stroke. No grit will collect to wear liner.

Bettis pistons are tested to 5,000 pounds per square inch and elongation of 800 per cent. The rubber is seamless, grainless, abrasion-resistant, and resilient. The piston can be quickly installed on any standard pump rod. There are no adjustments to make. When the rubber finally wears out it is necessary simply to take off the lock nut, remove the old rubbers and install new ones.

ISSUES NEW BULLETIN

The Connersville Blower Co., Connersville, Ind., has issued a new bulletin, describing Connersville rotary gas exhausters for service in gas plants, by-product coke plants, oil refineries, chemical manufacturing industries, and other processes. This bulletin contains not only a description of the Connersville Exhausters, but also a basis upon which to determine the different bearing constructions used and other construction features.

TRADE LITERATURE RECEIVED

Old Hickory Kingham trailers and winches are described and pictured in an attractive 52-page catalog issued by the Kentucky Wagon Manufacturing Co., Louisville, Ky.

"Uniclamp" pipe fittings are the subject of a 36-page bulletin prepared by the Delta Star Electric Co., Chicago. There are five parts in the fittings, which make innumerable combinations.

The C. Lee Cook Manufacturing Co., Louisville, Ky., is sending out its catalog No. 129, devoted to Cook's metallic packings.

Bulletin No. 110, describing the R-S and R-B series of Connersville rotary positive blowers suitable for the medium range of air volumes and pressures, is being mailed by the Connersville Blower Co., Connersville, Ind.

Seven types of squirrel cage motors are discussed and compared in the new 24-page bulletin 165 issued by Wagner Electric Corp., St. Louis, Mo., under heading of general purpose, normal torque across-the-line, low torque across-the-line, high torque double-squirrel cage, punch press and elevator types.

"The Secret of Hydraulic Balance" is the title of a booklet produced by the Blackmer Pump Co., Grand Rapids, Mich., and outlining the basic principles of the Blackmer pump.

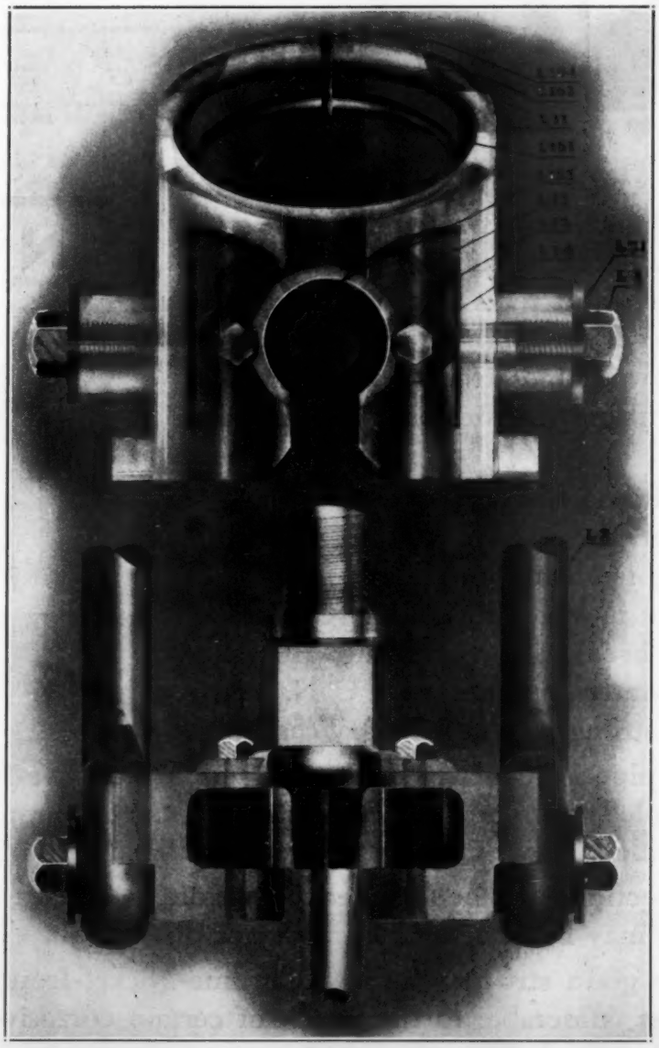
"In the perfected Kennedye-Plumb reamer bodies we believe that we have overcome one of the greatest causes for crooked holes, namely pipe flexure," declares the Kennedye-Plumb Corp., St. Louis, Mo., in a bulletin on its new K-P reamer body.

The Moon Manufacturing Co., Chicago, is distributing a four-page bulletin devoted to some of its portable lighting equipment.

SHAFFER SPECIALTY CO. MAKING A NEW TYPE OF SUCKER ROD ELEVATOR

In all oil fields of the United States approximately 300,000 wells are being produced by the use of sucker rods and pumps run into the well through tubing; and whether the well is pumping on the beam, with pump jack, or with some special type of equipment, it is essential at intervals to pull the rods and change balls and seats and other parts in the pump.

This operation of pulling rods costs the operator money in two ways, first in actual labor and power costs and second through loss of production during the shutdown period. It is therefore desirable that this operation be made as short as possible as well as safe.



One difficulty experienced in the past in handling rods into and out of the tubing has been the untwisting of the string as it was pulled out of the hole with a spinning of the elevators and an occasional dropping of the load as a result of the latch being forced open because of the rotating speed of the elevators being so high that the spiral spring that held the latch for the dogs in place would compress and the dogs open.

Another source of trouble was found in the tendency of the elevators to remain open even though the elevator man in the rod gang had tried to close them. Under such circumstances the rods are dropped and this causes a fishing job with further delay in production owing to lengthened shutdown period as well as the cost of replacements of rods damaged if they cannot be easily straightened.

Fought Troubles for Years

Two well known production men formerly with the Marland Oil Co., L. J. Mildren and James Taylor, fought these troubles for several years and eventually designed and patented the safety sucker rod elevator illustrated here and manufactured and distributed by the Shaffer Specialty Co., Tulsa.

This elevator is made out of a special heat-treated alloyed steel having a tensile strength of about 120,000 pounds per square inch. In the design of the body, pins and latches used in this piece of equipment care has been taken to make each part of ample size to carry its share of the load. The elevators are made in two sizes. The heavy type, weighing about 22 pounds, is designed

(Continued on Page 106)

BRAUN RADIAL DRILLING MACHINE IS ANNOUNCED

The United Machine Tool Corp., New York, has put on the market the Braun heavy duty radial drilling machine. Important features outlined are: Simple straightline movement of saddle or head, manipulation by hand reduced to minimum, all controls easily accessible and centrally located on saddle or head, no walking and simple attendance.

All gears can be engaged and disengaged without stopping the machine and they are protected by safety devices. Damage by faulty manipulation is said to be impossible. The full output of the motor is directly transmitted to the drill.

A circular issued by the company describes the drilling machine. It also describes the electro-mechanical riveting machine. A circular describes the 3 and 4 plate, slitting, trimming, shearing machine with capacity up to 1 1/4-inch plate which likewise bevels and scarfs.

BLADES GIVE SLICING ACTION

The Western Reese bit manufactured and put in the field by the Southwestern Tool Co., Inc., Long Beach, Calif., has the cutting blades set at an angle to give a slicing action. The arrangement of the blades affords a large amount of cutting edge, thereby increasing the footage per bit. It is not unusual to stay on bottom three or four tours and in Kettleman Hills these bits, the company says, have remained on bottom as high as seven tours. The arrangement of the reaming edges is designed to prevent binding in the hole and to maintain the hole to gauge. Records are reported to show that over 83 per cent of the bits run were less than three-eighths inch out of gauge and more than half this number were only one-eighth inch out of gauge. This bit is made in sizes from 4 3/4-inch up.

DIRIGIBLE FED FROM TRUCK

When the dirigible "Los Angeles" was being refueled preparatory to its homeward jaunt after its visit to the national air races in Cleveland, Ohio, the scene depicted the interlinking of two modern forms of transportation. The giant craft could not go to the gas station so the 1,300 gallons of aviation gasoline was hauled to the dirigible by a General Motors truck in the service of the Standard Oil Co. of Ohio. In a recent test held in the presence of several hundred men interested in the transportation of oil and gasoline, the General Motors truck model T-19 tractor hauled a trailer bearing a 4,922-pound payload uphill 3,700 feet in 3 minutes and 59 seconds. The average grade was 10.2 per cent. As a result of this performance 50 of these models are now in the service of the Standard Oil Co. of Ohio.

MARKERS ON RUSSELL ROOFS

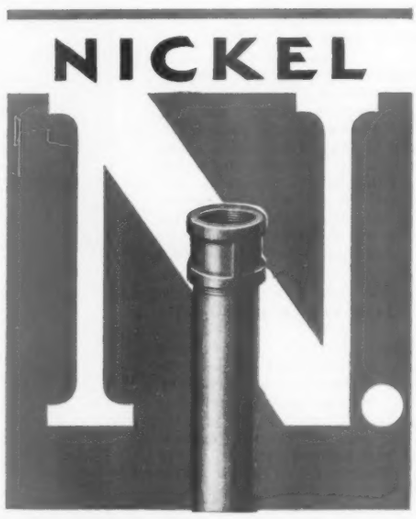
Pilots flying over the Boston-New York route appreciate markers put on the roofs of the Russell Manufacturing Co., of Middletown, Conn., makers of Rusco aero products. There is a standard government marker 150 feet by 15 feet on one roof and nine smaller signs reading, "Home of Rusco Products" on another roof.

FWD WINCH IN THE OIL FIELD

In the oil fields the FWD winch is being used to move drilling machines weighing many tons around oil leases over soft ground, erecting heavy drilling rigs, pulling casing, rods, and loading and unloading heavy machinery and rigging. The Halliburton Oil Well Cementing Co. is using 76 FWD's.

WAL

Many of the of cast



WALWORTH C. N. I. pipe has the same outside diameter as wrought iron or steel pipe . . . It can be cut and threaded with power or hand tools and carries regular pipe threads, enabling it to be made up with screwed pipe fittings . . . Walworth C. N. I. fittings of the same material are available.

The additional strength of C. N. I. pipe is important. Breakage in transportation and handling is eliminated. Deflection tests show that it will withstand severe strains without breaking or cracking. Bursting tests by water pressure prove C. N. I. pipe is much stronger than ordinary cast iron.

C. N. I. pipe is regularly made and supplied in five-foot lengths, threaded and coupled (standard pipe threads), but can be supplied with plain ends, ends beveled for welding or grooved for Victaulic joint.

Longer sections can be supplied by welding together two or more lengths. Welding may be done at the factory or on the job.

The fine grain structure of the Chrome-Nickel-Iron makes C. N. I. pipe much less vulnerable to the attack of certain corrosive agents that destroy steel and wrought iron.

For full particulars about Walworth C. N. I. pipe . . . address Engineering Products Division, Walworth Company, 51 East 42d Street, New York City.

In booths 104, 105, 106 and 107 Oklahoma Building

WORTH

restrictions on the use iron pipe are now removed

Its Advantages

Can be threaded and cut easily and quickly.

Makes up with screwed fittings of same material.

Close grained structure increases resistance to corrosion.

Greater strength reduces breakage to minimum.

Easily welded.

No caulking necessary for tight joints.

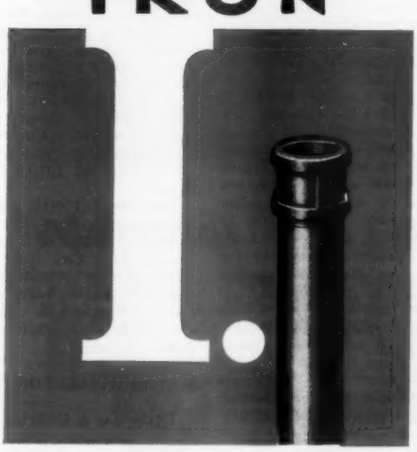
CAST iron pipe has many recognized advantages, but its use has been restricted because it was available only in the bell and spigot or flanged types.

Now Walworth offers a new cast alloy pipe of Chrome-Nickel-Iron which . . . because it can be made up with screwed fittings and can be cut and threaded on the job . . . lifts the restrictions from cast iron, yet retains all the desirable advantages of corrosion resistance and long life.

Walworth C. N. I. pipe offers an easy solution for many of the most difficult piping problems in the building industry, in oil, water and gas lines, in the process industries . . . and in oil production and refining operations.

C. N. I. PIPE AVAILABLE IN
1½"—2"—2½"—3"—4"—5" and 6" sizes

IRON



THREADED *Cast*

PIPE

Natural Gas Developments

NATURAL GAS PROGRAM FOR A.G.A. CONVENTION

At the eleventh annual convention of the American Gas Association, to be held in the new Municipal Auditorium at Atlantic City, N. J., from October 14 to 18, an attendance of 6,000 natural and manufactured gas men and guests is expected.

Among the reports to be read Wednesday morning, October 16, will be one from the Accident Prevention Committee by E. J. Kreh, chairman, Equitable Gas Co., Pittsburgh, Pa. A paper will be read on Sales Methods Under Strong Competition, by George E. Whitwell, vice president, Equitable Gas Co., Pittsburgh, Pa. A. W. Robertson, chairman of the board, Westinghouse Electric & Manufacturing Co., Pittsburgh, Pa., will deliver the closing address Thursday morning.

The Natural Gas Department program, Tuesday afternoon, October 15, at 2 o'clock, follows:

Opening remarks—S. W. Meals, chairman, Carnegie Natural Gas Co., Pittsburgh, Pa. Modern Pipe Line Construction Methods—Elmer F. Schmidt, Lone Star Gas Co., Dallas, Tex. The Underground Storage of Gas—S. W. Meals, Carnegie Natural Gas Co., Pittsburgh, Pa. Natural Gas Rates and Cost Allocations—F. C. Hamilton, Henry L. Doherty & Co., New York, N. Y. Report of Nominating Committee—A. W. Leonard, chairman, Devonian Oil Co., Tulsa. Election. Reports of committees. Open discussion.

On Wednesday afternoon a paper will be read on "Procedure in Natural Gas Business from the Time the Lease Is Taken Until Gas Is Delivered at the City Line," by E. B. Nutt and R. D. Beardsley, Hope Natural Gas Co., Pittsburgh, Pa.

The report of the Committee on Dehydration of Gas, F. W. Speer, Jr., chairman, the Koppers Co., Pittsburgh, Pa., will also be read Wednesday afternoon.

On Thursday afternoon, Thomas R. Weymouth, president, Oklahoma Natural Gas Corp., Tulsa, will deliver a paper, title to be announced later.

GWYNNE GOES TO WEST VIRGINIA

Roy D. Gwynne, formerly district manager for Joseph Greenspon's Sons Iron & Steel Co. of St. Louis in the Mid-Continent area, has moved to Beckley, W. Va., where he now has full supervision of the production and distribution system of a natural gas plant being installed by the Greenspon interests. The Beckley plant will furnish natural gas to an estimated population of 150,000. Other natural gas plants are under construction in Kentucky and Indiana by Greenspon company which will serve large areas.

UNITED GAS SALES

Six months sales to June 30 of the United Gas Co. system totaled 22,078,134,000 feet of natural gas. Gross revenues were $6,484,749. Gas sales for July showed an increase of 20,000,000 feet over the preceding month and are now running in excess of 135,000,000 feet a day, O. R. Seagraves, president, announced. The company's operations radiate from the Houston district which has an estimated potential industrial load of 200,000,000 feet a day.

ANTI-KNOCK TESTS

Special tests have been started at the Detroit Engineering laboratory of the Ethyl Gasoline Corp., and at Wright Field, Dayton, Ohio, to determine the exact antiknock relations of various blends of motor fuel on both automobile and airplane engines.

SURVEY OF GAS SALES MANAGEMENT PLANNED

The nationwide field survey made in connection with the American Gas Association's course in domestic gas salesmanship revealed the fact that there are many profitable merchandising methods and sales management practices used by gas companies which, if analyzed and made available to all companies, would be of estimable value. The need for such a survey was fully discussed at the last meeting of the managing committee of the commercial section and a mail ballot since that time has indicated a widespread interest in the subject.

As a result, arrangements have been made to conduct a national survey for the purpose of gathering from about 75 companies all the available material pertaining to merchandising and sales management in the gas industry. This material will be analyzed and co-ordinated and made available in the form of a series of texts, designed not only for sales and merchandise executives, but also for branch managers, supervisors and all others who are in charge of merchandising activities.

Among the subjects to be covered are: Planning gas sales objectives; organizing merchandising setups; selecting, hiring and training salesmen; preparing salesmen for special services and activities; meethods of fixing objectives in load building; directing a sales force; sales records and statistics as an aid in setting up methods of sales control; handling crew operations; planning special and seasonal sales compaigns; opening new territory; tying in sales activities with advertising and direct mail campaigns; getting co-operation from other departments, and such other phases of managerial activities believed important.

The survey will be inaugurated about September 1 and it is expected that the first text will be available on or about January 1, 1930.

This activity will enlarge the present sales services available to association members so as to cover not only the training of salesmen but also several of the best merchandising and sales practices from a managerial standpoint.

GAS SALES SHOW RISE IN FIRST SIX MONTHS

Increase of 9 per cent in gas sales during first half of 1929 is shown by survey of 91 gas companies, representing most of the industry. Company customers mounted to 9,254,000 as of June 30, 1929, 2.5 per cent increase over June 30, 1928, according to the American Gas Association.

South Central and Mountain States showed an unusually high increase, due to the fact that three of the reporting companies formerly selling manufactured gas now distribute natural gas. In California, Connecticut, Illinois, Michigan and Wisconsin, sales for first six months of 1929 were far ahead of like period last year.

Increase in total sales registered by reporting companies in various geographic regions follows: New England, 5.6 per cent; Middle Atlantic, 1.2 per cent; South Atlantic, 2 per cent; East North Central, 9.9 per cent; West North Central, 2.9 per cent; South Central and Mountain, 54.9 per cent; Pacific Coast, 20.8 per cent.

The companies reporting showed 7.7 per cent decrease in water gas production; 11.4 per cent decrease in retort coal gas production; 36.2 per cent increase in coke over gas production; 25.5 per cent increase in coke oven gas bought from steel and coke companies operating by-product coke-oven plants, and 51 per cent increase in natural gas purchased.

ALTERNATIVE PLANS FOR DISPOSAL OF GAS

CHATHAM, Ontario, Sept. 14.—Announcement that Imperial Oil, Ltd., is not interesting itself in the proposed pipe line from the Turner Valley Field to Winnipeg appears to have pretty well negatived that solution of the waste gas problem in Alberta. The problem is now under consideration by a joint government commission, which carried on some investigations this summer and is to meet again in October.

Other solutions include the storage of surplus gas in the exhausted sands of the Bow Island Field, from which Calgary drew its first gas supply. This project is mechanically feasible; but the repeated handling of the gas would, it is claimed, render the ultimate market price prohibitive. More extensive use of natural gas in industrial operations is discounted by the limited market at present open to industrial plants operating in the Canadian West.

While no information has been given out, the impression appears to be growing that the commission will favor export of the waste gas to Montana markets, subject to restrictions that would protect Canadian consumers against any subsequent shortage. As an alternative, wastage in the field might be limited to a certain amount daily, but with the gusher wells it seems impossible to make this limitation effective, while in any event it would interfere with development.

It is claimed that the wastage amounts to 200,000,000 feet a day in summer, and approximately 57,000,000 feet less in winter; with prospects that it will materially increase as new wells are brought in. The amount of gas that can be utilized for domestic purposes is limited by the capacity of the existing scrubbing plants and by the markets in Calgary and elsewhere.

GAS INDUSTRY IN KENTUCKY

The Missouri-Kansas Pipe Line Co. has been busy since July 16, when it inaugurated natural gas service to Owensboro. With a contract to supply all Owensboro's requirements, the company is prepared to provide for a daily consumption of 4,000,000 feet. Four wells on a lease 8 miles from Owensboro, with an initial flow of 11,000,000 feet, are the first source of this supply. This company constructed 12 miles of 8-inch line, and 8 miles of 6-inch mains were put down in Daviess and Ohio Counties. In Owensboro district alone the investment is upward of $500,000, and the company owns and controls leases of gas contracts on more than 100,000 acres in western Kentucky through a district 80 miles long and 50 miles wide. The bringing in of a large gas well on the Lester farm in the Kirkwood Springs area of Hopkins County recently may mean that a line will be run from that part of the field to Evansville, Ind., and other intervening towns, which would require construction of something like 70 miles, with many fairly good towns along the line and passing through Webster and Henderson Counties where the company has prospective gas territory.

SAFETY CONGRESS

Safety in the mining, oil, metal and other industries will be considered at the annual convention of the National Safety Council at Chicago, from September 30 to October 4. C. W. Smith, of the Standard Oil Co. of Indiana, will be chairman of the petroleum section.

COST OF HELIUM GAS STORAGE NOW REDUCED

An interesting development, which is very apropos following the record flight around the world by the "Graf Zeppelin," is the latest method of storing helium gas. This remarkable gas, so essential to the safe operation of giant dirigibles, is very costly, which, together with the fact that enormous quantities have to be accommodated, presented quite a problem for storage. The Goodyear Zeppelin Corp. has awarded the contract for their Akron field storage to A. O. Smith Corp. of Milwaukee, which states that the Smith proposal makes possible the storage of gas under pressure at a considerably lower cost than ever before.

Briefly it involves a battery of tanks 80 feet long and 2 feet in diameter. Two lengths of the Smithweld gas line pipe are joined and heads welded to the ends to make up each tank. Thanks to the high tension steel used and the 100 per cent efficient joints it is thus possible to employ comparatively high operation pressure and consequently a favorable ratio between volume and weight, yet it is unusually low in cost.

For the Akron Zeppelin dock it was desired to maintain a storage capacity of at least 1,000,000 cubic feet dischargeable gas, which is approximately the volume of one cell for the new 6,500,000 cubic foot ships being built for the United States Navy. Ninety-six tanks of the Smith design will be supplied to take care of this storage. The tanks will be buried underground and suitably manifolded together in groups.

As soon as experts of the Akron company had reached their decision, a similar contract was also placed with the A. O. Smith Corp. by the Bureau of Aeronautics of the United States Navy Department. This calls for some 50 tanks of substantially the same dimensions to be installed at the Lakehurst field and 320,000 cubic feet of dischargeable gas will thus be added to their facilities in anticipation of the giant Zeppelins contracted for.

GAS CONSTRUCTION PLANTS

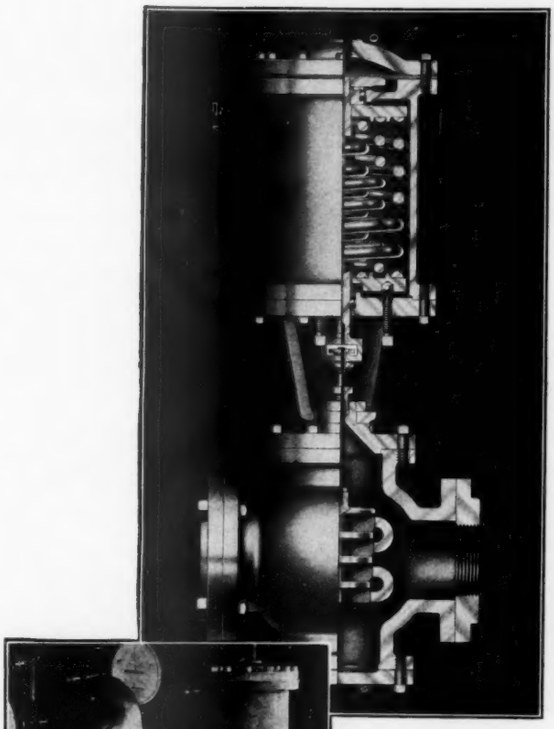
CINCINNATI, Ohio, Sept. 14.—Stacey Engineering Co., a holding company to acquire artificial gas construction plants, has been formed with a capital of $5,000,000. Beaman Gates Dawes, chairman of the board of Pure Oil Co., heads the new holding company and is chairman of the board. The new company has acquired the Stacey Brothers' Gas Construction Co., of Cincinnati; the Connersville Blower Co., of Connersville, Ind., and the Wilberhan Green Co., of Pottstown, Pa. Negotiations are about to be completed for acquisition of two additional companies.

Fletcher S. Heath, director and former treasurer of Pure Oil Co.; James E. Stacey, president of Stacey Brothers' Gas Construction Co., and Carmi Thompson, Great Lakes steamship operator, are members of the board of the new company. Charles H. Henry and Rupert Dawes are also interested in the company.

GAS SERVICE FOR TEXAS TOWNS

Dixie Gas & Utilities Co. has added the Texas towns of Dayton, Crosby, Highlands, Lufkin, Liberty and Sour Lake to the Dixie system, according to an announcement by O. R. Seagraves, president of the company. "Distribution in the Humble district will be completed within 30 days," he said. "There additions will give the system more than 2,000 new customers within the first year of operation."

50% CLOSER REGULATION...



Section of WILGUS Regulator showing ball bearing stem guides and balanced 4-port valves

WILGUS Regulators are carefully tested and adjusted under service conditions before delivery to purchasers

Comparative tests of WILGUS and other regulators show that precision in manufacture results in superior performance!

WILGUS Regulators demonstrate their sensitiveness and reliability *without attention* in comparative tests because these qualities are *built in* . . . valve stems floating in frictionless ball bearings . . . valves hand-fitted to seat perfectly . . . every regulator thoroughly tested and adjusted at the factory under the conditions in which it is to be used.

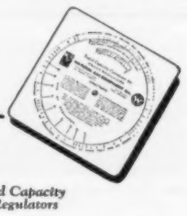
There is a WILGUS Regulator for every oil field requirement . . . and N. G. E. engineers are ready to co-operate in planning installations to meet the most difficult pressure control applications of:

Gas Fuel Regulators	*Back Pressure Regulators*
Reducing Regulators	*Differential Regulators*
Vacuum Regulators	*Steam Pump Governors*

NATURAL GAS EQUIPMENT INC.

PETROLEUM SECURITIES BUILDING, LOS ANGELES
ATCO BUILDING TULSA, OKLAHOMA
1123 HARRISON STREET SAN FRANCISCO

WILGUS REGULATORS . . N. G. E. GAS BURNERS . .
LIQUID LEVEL CONTROLLERS, GAS LIFT CONTROL
ANUBIS DIFFERENTIAL PRESSURE RECORDERS



Natural Gas Equipment Inc.
Petroleum Securities Bldg.
Los Angeles, California

Send me (no charge) the Rapid Capacity Calculator for all Wilgus Regulators

Name_____

Company_____

Address_____

Oil and Gas Journal, Sept. 19, 1929

MEN KNOWN IN OILDOM

Richard Florian

Richard Florian, president and general manager of the Western Oil & Refining Company, of Los Angeles, Calif., has been actively engaged in various branches of the oil industry for over 30 years.

Mr. Florian received his early education in the city of Chicago, and his first employment was with the Standard Oil Company of Indiana which has its general offices in that city. He was employed in several departments from 1898 to 1905, his desk for a time adjoining that of Edward G. Seubert, now president of the Standard company.

In 1905 Mr. Florian was transferred to the Standard Oil Company of New Jersey where he was given special training in all branches of the oil business to fit him for executive work on foreign fields. In 1906, he was transferred to the Romano Americana, the Rumanian subsidiary of the Standard Oil Company of New Jersey where he became managing director, returning to America in 1916.

As managing director of the Romano Americana, Mr. Florian had close business relations with many of the outstanding political and financial figures in European countries. He enjoys a wide acquaintanceship in foreign countries at this time.

After leaving the Standard company, Mr. Florian and associates organized the Western Oil & Refining Company of which he is the active executive head. The company is engaged in the producing, refining and marketing branches of the industry on the West Coast. The company is also engaged in export business.

PERSONAL PARAGRAPHS

P. A. Schmuck, of Tulsa, is visiting Winter Haven, Fla.

* * *

B. N. Wiseley has moved from Robinson, Ill., to Stamford, Tex.

* * *

Ray B. McGuire, of the Simms Petroleum Company, has moved from Breckenridge to Dallas, Tex.

* * *

J. Whitney Lewis of Fort Worth, Tex., accompanied by Mrs. Lewis, is in Cuba examining oil properties.

* * *

T. C. Towl, Pittsburgh, Pa., superintendent of the Southwest Pennsylvania Pipe Line Company, has returned from a business trip to New York.

* * *

J. C. Von Karlowitz and family have motored to California to spend a few weeks' vacation. Mr. Von Karlowitz is superintendent of the Texas Pacific Coal & Oil Company refinery at Fort Worth, Tex.

David Emery Brenneman and family of Tulsa are visiting relatives in Titusville and Bradford, Pa.

* * *

Robert L. Burch, independent operator, has returned to Fort Worth, Tex., from a trip to Mexico City.

* * *

Bruce McKague, independent operator of San Angelo, Tex., has returned home from a business trip to Fort Worth, Tex.

* * *

E. G. Woodruff, consulting geologist, is leaving Tulsa for a 10-day trip to the oil fields of southwestern Texas on professional business.

* * *

K. A. (Gary) Garrison, land man for the Skelly Oil Company, Abilene, Tex., was in Fort Worth, Tex., a few days on company business.

* * *

W. L. Green, branch manager of the Richfield Oil Company, at San Luis Obispo, Calif., has been appointed chief agent for the company at Santa Maria, Calif.

* * *

B. A. Hardey, Shreveport, La., executive vice president of the Dixie Gulf Gas Company, spent several days at headquarters of his company in Houston, Tex.

* * *

R. B. High, superintendent of the Shell Petroleum Corporation's refinery at Deer Park (Houston, Tex.), has returned from a short business trip to St. Louis, Mo.

* * *

J. C. Ballagh and Roy H. Bettis, of the Patterson-Ballagh Corporation, Los Angeles, Calif., are spending a few days in Tulsa, after which they will visit the Gulf Coast.

* * *

John W. Tryon, general manager of the Gulf Refining Company, with offices at Port Arthur, Tex., has left for a short business trip at headquarters of his company in Pittsburgh, Pa.

* * *

W. F. McMurray, of the Continental Oil Company, has returned to the Los Angeles, Calif., office of the company following several days spent in the Kettleman Hills Field.

* * *

C. H. Patterson, Houston, Tex., chief scout of the Shell Petroleum Corporation, Gulf Coast division, is enjoying a two weeks' vacation, spending the time only in short trips out of Houston.

* * *

Roy L. Cronise, Pittsburgh, Pa., dispatcher for the Eureka and Southwest Pennsylvania Pipe Line Companies, accompanied by Mrs. Cronise, is visiting the former's parents in Denver, Colo.

* * *

Edmund Jussen, Jr., has been appointed chief petroleum engineer of the Union Oil Company of California, succeeding A. C. Rubel, recently appointed assistant manager of production.

* * *

M. G. Stewart, president, and T. D. Sedberry, secretary-treasurer of the Pelican Well Tool & Supply Company, Shreveport, La., attended the Cleveland, Ohio, meeting of the National Metal Congress.

* * *

Robert B. Violette, assistant general manager of the Independent Oil & Gas Company, Texas and New Mexico division, has returned to his offices in Fort Worth, Tex., from a business trip in West Texas.

* * *

John F. Dodge, who was for 10 years petroleum production engineer of the old Pacific Oil Company, has been added to the teaching staff of the College of Engineering of the University of Southern California, located at Los Angeles.

* * *

N. W. Hunter, Houston, Tex., assistant to the president of the United Gas Company, made a hurried business trip to New York after acting as one of the representatives of the city of Houston at the launching of a cruiser at Newport News, Va., bearing the name of Houston.

* * *

Brookes Hamilton, of the production department of the Louisiana Land & Exploration Company, who has been in Terrebonne Parish, Louisiana, since February in connection with operations of the company there, has returned to Houston, Tex., for a three weeks' stay.

The Continental Oil Company has closed its district geological and scouting office in San Angelo, Tex., and Carey P. Butcher, in charge of the office, has been transferred to Roswell, N. Mex., where his work has been holding him.

* * *

Frank W. DeWolf, vice president and general manager of the Louisana Land & Exploration Company, Houston, Tex., who has spent the past three weeks in Schenectady, N. Y., at the historical library, has returned to his office.

* * *

Lee LaFerney, formerly of the Crown Central Petroleum Corporation, Houston, Tex., but who lately has been engaged in other business, has returned to the Crown Central corporation, and now is acting superintendent of the Pasadena refinery.

* * *

J. W. Selby, chief scout for the Shell Petroleum Corporation, Dallas, Tex., Marc H. Lawrence, land man for the Sinclair Oil & Gas Company, Fort Worth, Tex., and Paul Martin, chief scout for the Pure Oil Company, Fort Worth, have been making a trip over the San Antonio district.

* * *

George D. Williams, sales manager of the Hancock Oil Company, connected with Cameron Refining Company, of Ardmore, Okla., before coming to California, has been elected vice president, succeeding to the position left vacant through the recent death of J. W. Hancock, one of the founders of the company.

* * *

C. H. Homer, formerly superintendent for the Rycade Oil Corporation, Houston, Tex., in its Bayou Bouillon Field, St. Martin Parish, Louisiana, and previous to that superintendent of production for the Rio Bravo Oil Company, has been made superintendent of production for Mills Bennett Production Company.

* * *

J. Y. Snyder, of Shreveport, La., president of the American Association of Petroleum Geologists, which will hold its 1930 meeting at New Orleans, La., March 20-22, and J. P. D. Hull, of Tulsa, business manager of the organization, were in conference at Shreveport, La., making arrangements for the session. Mr. Hull went on to New Orleans.

* * *

H. C. George has returned to the University of Oklahoma after having made three months' investigation of underground equipment and methods in oil fields for the United States Bureau of Mines. Mr. George visited the oil fields of Texas, Louisiana, Arkansas, New Mexico, Oklahoma, Kansas, Colorado, Wyoming and Montana.

* * *

C. C. Hulbert, who for the past three years has been connected with the Joseph Greenspon's Sons Iron & Steel Company, of St. Louis, Mo., in the Tulsa office, has been appointed successor to Roy D. Gwynne as district manager of the Mid-Continent territory with offices in the Wright Building, Tulsa. Before his association with Greenspon's Sons company Mr. Hulbert was with the Oil Well Supply Company, for eight years, four years of which he was assistant sales manager of the Tulsa office.

* * *

Hayle B. Soyster, of the United States Bureau of Mines Bartlesville station, has been named chairman of the entertainment committee for the meeting of the Petroleum Conservation Service during the International Petroleum Exposition at Tulsa. Other members of the committee are H. J. Duncan and W. J. Armstrong. The Service is the national organization representing the various state departments of conservation of which W. F. Chisholm, supervisor of the minerals division of the Louisiana department, is president.

* * *

H. D. Crider, Dixie Oil Company geologist, who located the discovery well of the Muskegon, Mich., oil field, has resigned to become chief of the new geological staff of the Muskegon Development Company, the Muskegon Oil Corporation and three other associated Michigan operating concerns. Victor G. Hill, assistant Michigan geologist for the Dixie Oil Company since November, 1928, has been named chief of the Michigan staff to succeed Mr. Crider. Mr. Hill graduated from the University of Kansas in geology in 1927. He was stationed in the Seminole Field before being transferred to Michigan with headquarters in Muskegon.

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WORLD'S OLDEST AND LARGEST MANUFACTURERS OF OIL FIELD EQUIPMENT

Technical Questions Answered

BY CHARLES K. FRANCIS, PH.D., TECHNICAL EDITOR

This department of The Oil and Gas Journal is devoted to the manufacturing branches of the oil industry.

Those connected with the refining of crude petroleum, the manufacture of natural gasoline and closely allied industries are invited to submit their problems to Dr. C. K. Francis, technical editor. The department was created for the purpose of aiding managers, superintendents, engineers, chemists and all those engaged in the various phases of plant operation; also those connected with the marketing and utilization of petroleum products.

Questions should be submitted in as much detail as possible so as to assure a satisfactory answer.

All inquiries should be signed and if other than the given initials are to be used please indicate the desired letters.

Questions involving patented processes, intricate formulas and calculations and estimates of costs, for obvious reasons, cannot be answered. The replies will appear on this page within a reasonable time.

LIQUID FOR LOW TEMPERATURE INSTRUMENTS

Can you tell me if a low cold test oil, similar to white oil, is suitable for use in airplane instruments, especially where they have to operate at very low temperatures?—J. C. O.

There is not much information available on this subject. It would appear that a highly purified mineral oil may be satisfactory for use in air craft instruments. The Bureau of Standards reports that this subject is now being investigated, as indicated in the statement following.

At present damping liquids are used in aircraft compasses and lateral inclinometers. Artificial horizons of the bubble type depend for their operation on liquids having the same characteristics which are important in a damping liquid.

After giving due consideration to the factors of invariability with time, low volatility, constancy of index of refraction and transparency for varying temperatures in the choice of the liquids, data was obtained on the freezing point and on the viscosity in the temperature range—20 degrees Centigrade to 30 degrees Centigrade. The latter property is of primary importance in the selection of a damping liquid.

The freezing point of the liquids should be —40 degrees Centigrade or lower since aircraft instruments may be subjected to low temperatures during the ordinary operation of aircraft.

Measurements of the viscosity were made on solutions of animal, vegetable and mineral oils in xylene, glycerin in alcohol and other solutions. Data were obtained for individual liquids including kerosene, mineral spirits, xylene and recoil (mineral) oil. These data are published in N.A.C.A. Technical Report No. 209, which may be obtained for 10 cents from the Superintendent of Documents.

The object of the investigation was to find a liquid or liquids which had a high viscosity at about 25 degrees Centigrade, and small temperatures coefficient of viscosity. A criterion for comparing the liquids in this respect is arbitrarily selected as the temperature at which the kinematic viscosity is five times that at +30 degrees Centigrade. For most purposes this fixes the lower temperature limit of usefulness. No liquids with an absolute viscosity greater than 0.05 poise at 25 degrees Centigrade were found for which this temperature is much below —20 degrees Centigrade and none of absolute viscosity of about 0.025 poise with this temperature below —40 degrees Centigrade.

Further work is being carried on, first, in extending the lower temperature limit of the data to —50 degrees Centigrade and lower, and second, in obtaining data on promising liquids and solutions in an effort to find those with a viscosity higher than 0.025 poise at 25 degrees Centigrade which are usable at temperatures down to —40 degrees Centigrade.

PRETREATMENT OF CRUDE OIL

The oil we run contains sulphur and hydrogen sulphide with some water. This water does not separate on standing in the crude tanks and I would like to know what you think of adding some lime or caustic to the crude before running it?—A. R. C.

There are numerous crudes which should be pretreated before they are run through the stills. The common methods are washing with water and treatment with chemicals either while the oil is held at the normal temperature or heated to a slight extent. When any chemical substance is added to the oil some means should be provided for complete separation of these before the oil reaches the still, and this is especially important when lime or caustic soda are used. The reason for this practice is that these are solids, or their compounds are deposited as solids from the solution, which quickly form deposits in the still. These deposits tend to cause damage to the metal through the formation of hot spots.

Various forms of heat exchangers, settlers, even a part of a battery of stills, have been used for the pretreatment of crude oil and the process has been beneficial in many instances. However, this part of refining is similar to the treatment of boiler water in that the chemicals should be kept out of the heated zone and the process must be under adequate control.

There is no general rule as to what chemicals should be added to the oil. The water found with crude oil usually contains salts which decompose to form acid, and this condition has been corrected in some refineries by the addition of ammonia. This substance does not combine with the acid to form a solid that will be deposited in the still, like caustic soda, but the resulting solid is usually ammonium chloride that may collect as a solid in the cooler parts of the towers. This material may be removed by simply washing with water at convenient periods.

IDENTIFICATION OF RECLAIMED LUBRICATING OIL

A good deal of reclaimed lubricating oil is of poor quality but some, particularly that made by vacuum distillation of carefully segregated used oil, is excellent. What test can be made to show whether or not an oil contains any appreciable quantity of reclaimed oil? I mean of course tests which will reveal the presence of reclaimed oil of the high quality variety.—R. H. P.

If the process for treating a used oil is truly a reclaiming of the original oil it would be a difficult matter to determine the source of the product. No one test would be reliable, when considered alone, as a basis for an opinion that an oil has been through some sort of a reclaiming process. When the properties of the new oil are known it may be possible, by means of a series of tests, for one to conclude that the oil has been used and has been refined a second time.

A discussion of the properties of reclaimed oil may be found in Technologic Paper No. 223 of the Bureau of Standards, by Herschel and Anderson, Reclamation of Used Petroleum Lubricating Oils. This publication was sold for 5 cents by the Superintendent of Documents, Washington, D. C., and may now be out of print but is available in many of the Public Libraries. The properties of a new oil and the reclaimed oil after it had been used are given on page 99, a part of which follows:

Test—	New oil	Reclaimed
Flash °F.	518	473
Fire	618	563
Viscosity Saybolt at 210..	130	116
Acidity (Mg. KOH/gm. of oil)	.056	.056
Sediment	.05	1.0
Carbon residue, per cent..	2.35	1.36
Sulphur	.09	.15

"It will be noted that the flashpoint and firepoint . . . . . are not as high (for the reclaimed oil) as for the new oil, which is as would be expected. The viscosity of the reclaimed oil could be less readily foretold, because the kerosene which is not entirely eliminated tends to reduce the viscosity, and the oxidation of the oil tends to raise the viscosity."

PRESSURE LAWS OF DALTON AND RAOULT

What is the difference between Dalton's law and Raoult's law concerning partial pressure? How are pressures calculated from the analysis? If you will give the name of a book which gives a clear and simple explanation of this subject I would appreciate your kindness. —C. E.

The laws of Dalton and Raoult are similar except that the first is used for gases and the second is applied to liquids. Dalton's law of partial pressures states that each gas in a mixture exerts a pressure in proportion to the quantity present and the total pressure, at any given temperature, is equivalent to the sum of the pressures of each gas as if it were alone and occupying the same space. The pressure of each gas is known as the partial pressure. Raoult's law may be stated in the same word with liquids substituted for gases.

One of the best explanations of these and other laws related to gases and petroleum liquids is contained in the paper by W. W. Robinson, Jr., "Analyses in Oil Absorption Operation." The Oil and Gas Journal, June 6, 1929, page 54. The examples as given in this article help to make clear the application of these laws, and are repeated in the following.

For example: Air contains, roughly, 20.0 per cent oxygen, and 80.0 per cent nitrogen, by volume. Therefore, when air exists at 760.0 millimeters pressure (atmospheric pressure) the partial pressure of the oxygen will be:

$$\frac{20.0}{100.0} \times 760.0 \text{ mm. or } 152 \text{ mm.}$$

The nitrogen:

$$\frac{80.0}{100.0} \times 760.0 \text{ mm. or } 608 \text{ mm.}$$

Dalton's law can better be stated in terms of mols, to the effect that the partial pressure of a gas in the mixture of gases must be proportional to the ratio of the number of mols of the gas present to the total number of mols of all the gases present. This ratio is called the mol-fraction (x), and the rule, stated mathematically, then becomes:

$$p = P_g x_g.$$

Where, p = partial pressure,
P_g = total pressure,
x_g = mol fraction of gas in question.

To illustrate: Suppose we have 1,000.0 cubic feet of air at 0 degree Centigrade and 1 atmosphere pressure, composed of 20.0 per cent oxygen and 80.0 per cent nitrogen. Then, of this

1,000 cubic feet, 1,000.0 × .20 = 200 cubic feet is oxygen, and 800.0 cubic feet is nitrogen,

359.0 cubic feet at 0 degree Centigrade and 1 atmosphere = 1 mol, so we have:

$$\frac{200.0}{359.0} = 0.557 \text{ mols of oxygen}$$

and $\frac{800.0}{359.0} = 2.230$ mols of nitrogen.

Then the total number of mols will be: 2.230 plus 0.557 or 2.787 for 1,000.0 cubic feet.

Now, the mol per cent (x) of oxygen will be:

$$\frac{.557}{2.787} \times 100 = 20.0 \text{ per cent}$$

Applying this formula:

$$p = Px,$$

we have $p = (760.0) \times (.20)$,
$p = 152.0$ mm. for oxygen.

Raoult's law may be stated as:

$$p = P_1 x_1.$$

p = partial vapor pressure of any component in a mixture.
P_1 = vapor pressure of the pure component at a given temperature.
x_1 = mol-fraction of the component in the liquid.

To illustrate: Suppose we have a mixture of 50.0 per cent butane and 50.0 per cent pentane, by volume, enclosed in a vessel, with a vapor space above, and at a temperature of 90 degrees Fahrenheit, and we wish to determine the partial vapor pressure exerted by the butane.

The specific gravities (water=1.00) of butane and pentane, at 60 degrees Fahrenheit, are 0.584 and 0.631, respectively. The number of mols of butane would then be:

$$\frac{(50.0)\ (0.584)}{58.0} \text{ or } 0.503 \text{ mols (the 58.0 being the molecular weight of butane).}$$

The number of mols of pentane would be:

$$\frac{(50.0)\ (0.631)}{72.0} \text{ or } 0.438 \text{ (the 72.0 being the molecular weight of pentane).}$$

The total number of mols would then be 0.503 plus 0.438 or 0.941.

$$\text{Mol per cent butane } \frac{0.503}{0.941} \times 100 = 53.5 \text{ per cent.}$$

$$\text{Mol per cent pentane } \frac{0.438}{0.941} \times 100 = 46.5 \text{ per cent.}$$

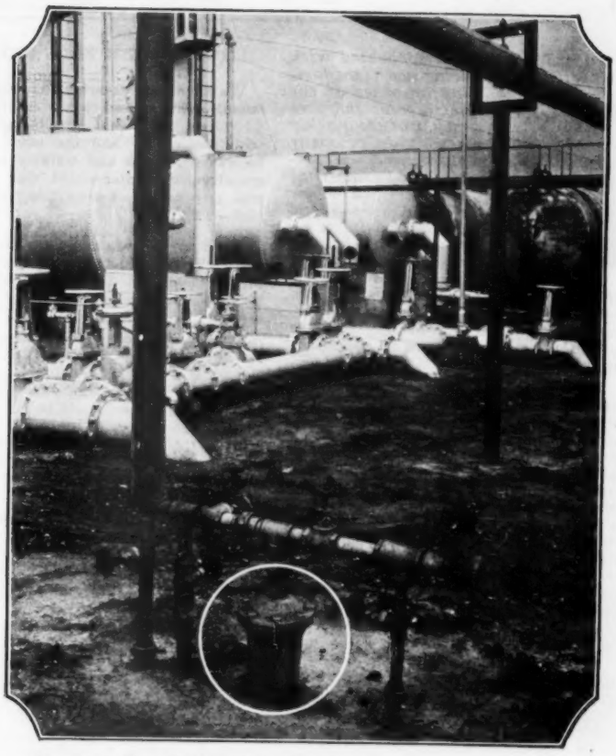
Now, the vapor pressure of pure butane at 90 degrees Fahrenheit is 44.5 pounds per square inch absolute, so, substituting in the equation:

$$p = P_1 x_1,$$

We have: P_1 = 44.5 pounds per square inch absolute,
x_1 = of butane as 53.5 per cent.

So: p (for butane) = 44.5 pounds times 0.535 or 23.8 pounds per square inch absolute as the partial vapor pressure of the butane in this mixture.

You don't *'baby'* this trap



Armstrong Trap draining steam line in a gasoline plant.

An outdoor job like the one illustrated—draining condensate from a steam line between boiler house and pumps — is "pie" for Armstrong Steam Traps. Although exposed to the elements, supported by connecting pipes, they work perfectly without attention for years.

The appearance of the trap itself helps to explain why you don't "baby" it. All the working parts are inside. It has large capacity, with small size. And if you look inside, the unique, simple mechanism will tell you why it is non air-binding, self-scrubbing and why it does not wire draw or leak steam.

Armstrong Traps are practically standard in some of the largest refinery and natural gasoline plants in the country—chosen by men who know their steam equipment. They drain process steam units such as stills and coils; steam lines; power equipment—engines, turbines, separators, etc. They are also widely used as gas traps.

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Field Problems and Their Solution

EDITED BY THOMAS F. SMILEY

In order that men connected with the drilling, producing and transporting branches of the petroleum industry may procure quickly a solution of many problems confronting them from time to time in their work, The Oil and Gas Journal has arranged with leading engineers and other recognized authorities to answer questions submitted by readers of this publication pertaining to the work of drilling and producing crude oil and transporting this product.

Everyone is invited to submit questions freely. These questions will be submitted to proper authorities by Mr. Smiley, who edits the page, and answers, based on the best available information, will be published. Each question should give as much detail as possible, especially where it relates to matters where depths of sands, types of sands and operations on adjoining properties would have a bearing on the problem involved. The source of all questions will be considered as confidential and only initials will be published in connection with the question.

In this connection, The Oil and Gas Journal will be glad to publish articles from field men who have devised new methods or practices which are improvements.

In case an immediate answer is important, one will be given by mail if the writer requests it.

PRESSURE CAUSES COLLAPSE

Has it ever been determined at what depth casing begins to be in danger of collapse? When the casing string is set at a depth which is likely to be attended by danger of its collapsing are there any precautions that can be taken to lessen this danger?—R. T. S.

A satisfactory answer to your question is found in a paper by J. B. Case, chief deputy supervisor of the Department of Petroleum and Gas, State of California, and issued as publication No. 11, by Baker Tools, Inc., Los Angeles, Calif. Mr. Case says:

"The depth at which a string of casing is set is in no way responsible for its collapse. Casing collapses when the external pressure becomes greater than its collapsing strength. This condition is brought about by permitting the fluid level inside a string of casing to become too low. In cases where water strings are set at a depth far below the point to which the inside fluid level can be safely lowered, an additional string of casing should be used to reinforce the water string. These so-called secondary water strings or reinforcement strings should be of such size as to safeguard against collapsing when the fluid level from the producing oil zones reaches the depth of the cementing point of the water string. It should be bonded by cement or suitable mechanical means to the larger water string so that a high fluid level between the primary and secondary water strings may be maintained. In some fields where high gas pressures exist and where the flowing life of a well has extended over a considerable period of time, it has been the experience that the gas pressures drop off very suddenly with a resulting sudden drop in fluid levels. When this occurs a great many collapsed water strings are reported and they are always found in wells where timely precaution to reinforce the deep water strings was not taken."

HIS SUCKER RODS BREAK

We have been experiencing considerable trouble with sucker rods breaking in our 3,000-foot wells that are being pumped with gas engine and the usual type of bandwheel, crank and walking beam and grasshopper counterweight. Can you suggest any means of remedying this trouble?—T. Y. S.

Breakage of rods may be caused by so many things that it is hard to state definitely just what your principal trouble is, but the following suggestions are offered:

One method of reducing rod trouble has been to place some back pressure on the well by partly shutting it in at the casinghead and causing part of the gas that accompanies the oil to find its outlet through the tubing and in this way lighten this fluid load by lowering the viscosity of the oil and by aerating it, which actually would reduce the weight of the liquid column in the tubing.

In other industries it has been found that by understressing metal for a time its life will be lengthened when it is put into full working load conditions. This has been applied to rods by putting a new string first into a well where it would have a load that was known to be much below its full working capacity and after running it there for a time and allowing the steel to become tempered, as it were, the string is put into use in a well where it will be properly loaded.

The adjustment of counterbalance is also a vital item in the proper pumping of any well and if this weight is so placed as to cause a jerking on the rods, even though the motion may be apparently harmonic, the rods will be found to break frequently. It has been suggested that a tachometer can be used to advantage to indicate the surge in the applied load if this speed indicator is applied to the crankshaft of a gas engine or to the rotor shaft of the electric motor. If electric motor is used the watt meter will indicate closely the variation of power input which will show the actual variations in the pumping strokes and loading.

There are other things that can affect the life of rods, such as bending them in handling, hitting the pin box with a hammer in making up and breaking joints, pumping with too fast a motion, poor makeup of the string owing to leaving dirt and grit on the pin shoulder, and undue wear of the couplings and boxes because of crooked holes. Rod breakage has been reduced as much as 75 per cent by using electric motor.

A check of some of the foregoing causes for rod breakage against your known conditions may indicate the reason for your excessive number of shutdowns, and if you can state more specifically the character of the breaks, the depth at which most of them occur and tell something more of the pumping conditions at this well, this department will be glad to treat the matter further.

VALUE OF REPRESSURING

Articles on repressuring that I have read do not give a clear idea as to how much benefit an operator may expect from employing this system or how many wells an operator should have to warrant him in adopting this method of increasing the oil recovery. Nor do they tell how low the production of a well or a field should be before repressuring operations should be started. Could you give me some information along this line?—S.E.G.

Each oil field, sometimes each well, presents a separate problem in repressuring and no operator is advised to resort to it without first having an engineer conduct a survey and make a recommendation. The condition of the area to be repressured determines the degree of benefit that may be expected. Generally speaking, the operation should be started just as early in the life of the well as is economically practicable in order to obtain the fullest advantage of the natural rock pressure. If this is done the compressor capacity needed throughout the high-pressure period will not be greater than that required later in the life of the well. As oil is removed a greater volume of gas must be introduced of course to maintain as nearly as possible the original sand conditions.

While, as stated, each well may offer its own problem, it is a proven fact that wells of dwindling production may be rejuvenated by the repressuring process. Although mechanical difficulties have had to be overcome, efforts and expenditures have been repaid by increases of 10 and 20 per cent and more in output.

Such a seemingly small increase really means much in terms of barrels. A recent test showed that the injection of 540,000,000 cubic feet of gas resulted in a gain in production of more than 360,000 bbls. of oil, or about one additional barrel for each 1,500 cubic feet of gas injected.

WHY WAS IT CALLED THAT?

FLOW BEAN

This term came into use in the early days of oil production because of a method of packing off a well between the tubing and either the liner or the casing. A leather bag filled with dry beans (the common garden variety) was fastened on the lower end of the tubing before it was lowered into the well and as the beans swelled through absorbing moisture from the fluid in the well the packer became tight.

Later the practice was varied to restrict flow of production from a well by using a control device made up of various pipe fittings. A flow nipple or "bean" was used to permit the highest possible production of oil and still retain sufficient pressure against the formation back of the oil string to prevent the sand from entering the hole and plugging it.

SHALE AND SLATE

Can you tell me the difference between shale and slate? They look a good deal alike but judging from the names they must be somewhat different in character.—L. K. W.

Shale is soft and comparatively easy to drill as it breaks into large flake-like pieces and readily mixes with water into thick mud or sludge. It is in reality laminated rocks made up of hardened muds, silts and clays, and consolidated by the pressure of the overburden or by folding of the formation.

Slate, while like shale in some respects, is brittle and harder and breaks into smaller pieces when drilled and has some tendency to stick the drilling tools in cable-tool work.

It is formed from shale that has been subjected to greater compression forces and can be classed as a fine-grained rock, usually dark colored and characterized by a definite cleavage often so perfect that it can be split into slabs for roofing and other purposes.

Geologically speaking, shale has been formed by sedimentation. That is, in the formation of the earth's crust unconsolidated sediments were deposited by wind, water or ice and underwent a process of lithification or conversion into rock. Slate, on the other hand, is a result of metamorphism or alteration, which means that the original masses of sedimentary rock were acted upon by great pressures which created heat, and also by ground waters that had acquired powerful chemical action through heat and pressure.

NATURAL GAS IN IOWA

Some time prior to the year 1900 a small gas field was opened in Iowa which furnished for a time sufficient supply for domestic use from wells 60 to 100 feet deep. We do not believe this field is now in evidence and we would like to determine if at all possible the nature of the gas produced at that time, whether coal gas or petroleum gas. Should there not be either government or state records giving this information and how should one proceed and to whom should one apply to secure this information?—R. H. S.

An inquiry addressed to the State Geological Survey, Des Moines, Iowa, should bring you the information you desire. The gas field to which you refer was presumably the one in the southeastern part of the state, where in more recent years small showings of oil have been found.

WHAT IS AN OFFSET WELL?

I am interested in a number of wells here in this field and have leased land to different companies. I am anxious to learn just what is meant by an offset. I hear a lot of talk about offsetting, but can't find anybody who can explain just what constitutes an offset.—A. H.

In prospecting for oil it is customary to divide the land up into leases of varying size and these leases are bounded by lines similar to the boundaries of the farm lands of this country.

When drilling is started it has become good practice to start the well at some standard distance back from the line marking the boundary of the lease and it is usual to make this distance 330 feet. The next well on this property to the right or left of the No. 1 location will be placed 660 feet away and in this way four wells will be drilled to each 40 acres of leased land.

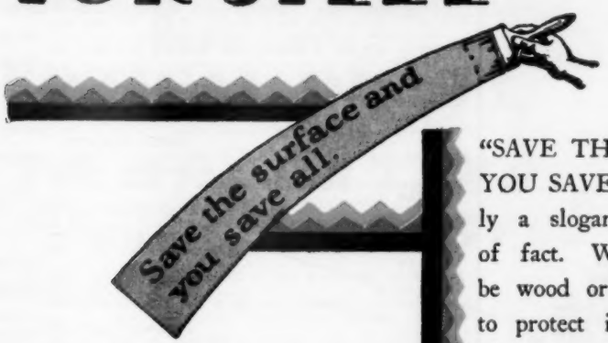
The company or individual owning the land that is on the opposite side of the boundary line from the first well will start a well 330 feet back from the line and in this way the distance between two rows of wells upon adjoining property is 660 feet.

The second well is known as the "offset" well, or it is a well so placed as to balance the well first started and if drilled to the producing horizon should be the means of obtaining the proper proportion of the oil or gas for the owner of that lease.

The practice of placing offset wells is somewhat complicated by the character of the oil sands to be drilled and the shape of the underground strata. If you are interested in going into such details, it is suggested that you get Dorsey Hagar's book on oil field geology, which is quite complete but not technical.

The distance between wells is not always 330 feet or one-sixteenth of a mile and the wells are not always placed in the exact corners of the square that would be formed by the boundary lines of the lease, but the well that is located opposite the well first started is always known as the "offset" well.

ALUMINUM PAINT FOR STEEL



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ADDRESS _____

WILDCAT OPERATIONS IN KANSAS

(Descriptions are East unless otherwise marked)

(Continued from Page 52)

ELLIS COUNTY

Streeter & Stearns' No. 1 Leiker, SW NE Sec. 26-13-20w..Spudding; shut down.
Mid-West Exploration's No. 36 Berens, C SE NW Sec. 12-13-16w ..... Drlg. 1,175 ft.
Phillips Pet. Co.'s No. 1 Harder, NE SW Sec. 8-12-17w..Abandoned 4,017 ft.
Byrens et al's No. 1 Fisher, NW SE Sec. 4-11-20w ..... Drlg. 950 ft.
Rush Oil Co.'s No. 1 Gatewood, NW cor. NW Sec. 4-15-20w ..... Fishing 2,555 ft.
Finney & Weiner's No. 1 Freeman, SE cor. SW Sec. 24-15-20w ..... Spudded and shut down.
Prairie O. & G. Co.'s No. 1 Kutina, C NE SW NE Sec. 29-15-21w ..... Drlg. 800 ft.
Burger et al's No. 1 Hadley, SW cor. SW NW Sec. 20-11-17w ..... Drlg. 3,408-40 ft.; swabbed 80 bbls. 24 hrs.

ELLSWORTH COUNTY

Tatlock et al's No. 1 Sackem, C SW SE Sec. 25-17-9w....Shut down 600 ft.
The Texas Company's No. 1 Sherman, NE SW Sec. 16-17-6w ..... Drlg. 2,565 ft.

FORD COUNTY

Swain et al's No. 1 Kenthorne, C NW Sec. 21-25-24w ....Rig on ground.

GRAHAM COUNTY

Gulf Coast Oil Co.'s No. 1 Johnson, C S half Sec. 27-8-25w ..... Drlg. 4,100 ft.

GREENWOOD COUNTY

F. Konkay et al's No. 1 Rock, NW NE NE Sec. 7-27-12..Shut down 50 ft.

HARPER COUNTY

Tom Slick Oil Co.'s No. 1 Miller, SE cor. Sec. 13-34-8w ..... Rigging up standard tools 5,018 ft.
Tom Slick Oil Co.'s No. 1 Thompson, NW cor. Sec. 19-32-6w ..... Drlg. 4,810 ft.
Independent & Reserve Oil Co.'s No. 1 Moulds, C NE Sec. 7-24-1w ..... Fishing 2,600 ft.

HARVEY COUNTY

Liggett et al's No. 1 Regier, C SE NW SE Sec. 2-23-3w..Drlg. 1,332 ft.
Payne and others' No. 1 Ady, NE NW SE Sec. 16-24-1 ....Drlg. 2,830 ft.
Deering-Marshall's No. 1 Dick, Sec. 4-25-2w ..... Drlg. 3,349 ft.
McCulloch et al's No. 1 Prouty, NW cor. SW Sec. 3-23-1w ..... Fishing 2,020 ft
Roth & Parrent's No. 1 Brombrowsky, NW cor. Sec. 26-22-1e ..... Underreaming 3,065 ft.
Mrs. Gay et al's No. 1 Grove, C NW NE NW Sec. 29-23-1w ..... Cleaning out 3,102 ft.
Jolly & Ogg's No. 1 Randall, NE cor. NE Sec. 11-24-1w ..Shut down 3,444 ft.
Rosenthal et al's No. 1 Ingalls, C NW SW Sec. 24-23-3w..S. D. 3,860 ft.
Jolly & Ogg's No. 1 Hupp SE cor. NE Sec. 22-23-1w ....Fishing 3,220 ft.
Walton Oil Co.'s No. 1 Neiman, C SE SW Sec. 13-14-2....Rig.

HODGEMAN COUNTY

Phillips Pet.'s No. 1 Hausman, NW NE Sec. 30-22-22w ..Drlg. 3,070 ft.

JEFFERSON COUNTY

Wichita Oil Co.'s No. 1 Simpson, NW cor. SW SW Sec. 19-10-17 ..... Rigged up and shut down.

KIOWA COUNTY

British-American's No. 1 Woodward, NE cor. Sec. 35-27-17w ..... Drlg. 4,835 ft.
British American-M. M. Valerius, NE cor. Sec. 35-27-17w..Location.

KINGMAN COUNTY

D. P. Fleeger's No. 1 Ashcraft, SE SW NE Sec. 16-28-7w ..... Rig.
White Eagle's No. 1 Lorenz, C NE SW SE Sec. 25-27-5w..Drlg. 480 ft.
Gypsy Oil Co.'s No. 1 Kincaid, NE cor. NW Sec. 18-29-5w ..... Wilcox 4,523-75 ft.; water; total depth 4,580 ft.; abandoned.

LANE COUNTY

Robinson's No. 1 Dickerson, Sec. 11-18-27w ..... 8-in. csg. 2,625 ft.
Blankenship Pet. Co.'s No. 1 Schaeffer, NE cor. NE Sec. 24-16-28w ..... Spudded and shut down.

LYON COUNTY

Sheedy et al's No. 1 Welch, NE cor. Sec. 30-20-10 .....Spudding.
Blair et al's No. 1 Martindale, C NW NE NE Sec. 27-21-11 ..... Drlg. 1,970 ft.
Gordon & Stats' No. 1 Murphy, NW NE Sec. 32-21-11 ....Abandoned 2,140 ft.; show oil 1,-944-59 ft.

MARSHALL COUNTY

Irwin et al's No. 1 Cooper, NE NW Sec. 10-3-7e .....Abandoned 2,525 ft.

MARION COUNTY

White Eagle's No. 1 Voker, NE NW Sec. 24-17-2 .....Rig on ground.
American O. & R. Co.'s No. 1 Urie, NW SW NW Sec. 10-17-3 ..... Drlg. 1,350 ft.
Empire's No. 1 Reising, NE NW NW Sec. 34-20-2 .....Drlg. 1,275 ft.
Davis et al's No. 1 Bartel, SE NE Sec. 1-19-1 .....Drlg. 2,275 ft.
Hobworth et al's No. 1 Skiles, SE NW NW Sec. 30-21-3e..Drlg. 3,198 ft.

McPHERSON COUNTY

McPherson O. & G. Co.'s No. 1 Fisk, SW NE NE Sec. 15-21-2w ..... Rig on ground.
McPherson O. & G. Co.'s No. 1 Sorenson, C SE Sec. 23-18-2w ..... Drlg. 1,425 ft.
Milmac's No. 1 Decker, NW cor. Sec. 11-20-3w .....Location.
Gatlo et al's No. 1 Diener, SE SW Sec. 10-20-1w .....Drlg. 1,535 ft.
Perry et al's No. 1 Wade, C SE Sec. 20-19-4w .....Drlg. 900 ft.
E. W. Marland's No. 1 Swanson, NE SW NE Sec. 36-18-4w..Drlg. 3,080 ft.
Slick, Pryor & Lockhart's No. 1 Gratton, C NE NW NW Sec. 34-20-3w ..... Shut down 2,415 ft.
Helmerich & Payne's No. 1 Klassen, SE NE NE Sec. 14-21-1w ..... Drlg. 2,965 ft.
McPherson Gas Co.'s No. 1 Chinberg, NW cor. Sec. 18-19-2w ..... Drlg. 3,496 ft.
McPherson O. & G. Co.'s No. 1 Rasmusson, SW cor. Sec. 8-18-3w ..... Drlg. 2,820 ft.
Transcontinental Oil Co.'s No. 1 Algers, NE SW Sec. 1-19-5w ..... Rig on ground.
Ted Washabaugh's No. 1 Vosshell, NE cor. NE Sec. 9-21-3w ..... Will complete as gas well; skid rig.

MORTON COUNTY

White & Cheney's No. 1 Love, NE cor. Sec. 11-34-42w....Rig on ground.

NESS COUNTY

E. W. Marland, Inc.'s No. 1 Moses, NE SE Sec. 7-18-25w..Drlg. 3,715 ft.

OSAGE COUNTY

Goebel-Bending's No. 1 Bartee, C SW SW Sec. 28-17-16..Drlg. 1,740 ft.

OSBORNE COUNTY

Phillips Pet. Co.'s No. 1 Greive, NW SE NE Sec. 6-7-12w..Drlg. 2,935 ft.
Mid-Kansas' No. 1 Boyce, SE cor. NW Sec. 18-6-13w ..Drlg. 2,785 ft.
Frees Oil Co.'s No. 1 Payenter, NE cor. SE SE Sec. 22-6-15 ..... Shut down 3,900 ft.

PAWNEE COUNTY

F. C. Troupe's No. 1 Lovett, CEL NE NE Sec. 31-21-16w.Shut down 1,560 ft.

PHILLIPS COUNTY

Watsonian-British American's No. 1 Wellman, C SW SW Sec. 34-2-19w ..... Granite 4,000-05 ft.; abandoned.

PRATT COUNTY

O'Haver & Jones' No. 1 Garacke, C NE SW Sec. 7-26-14w ..... Rig on ground.
O'Haver & Jones No. 1 Lunt, C SW NW Sec. 15-28-14w..Drlg. 3,815 ft.
Wilcox O. & G. Co.'s No. 1 Unknown, SW NW Sec. 7-26-15w ..... Rig.

RENO COUNTY

Empire O. & R. Co.'s No. 1 Blitz, NE NW Sec. 36-25-4w ..... Rig.
Kaiser & Murphy's No. 1 Friessen, SE cor. NE Sec. 6-22-4e .....Location.
Wilson et al's No. 1 McPhaeters, C S half NW Sec. 22-26-8w ..... Rig.

FAIRBANKS-MORSE
TYPE "Y"
VERTICAL DIESEL
CUTS OPERATING COSTS!

Read the Proof!

C. L. SUTTON
GENERAL SUPERA.

AMERICAN MARACAIBO COMPANY
ELECTRIC BUILDING
FORT WORTH, TEXAS

June 6, 1929

The Continental Supply Company,
Fort Worth, Texas.

Gentlemen:

Just three months ago we started up our first Diesel engine in West Texas and it occurs to me that you would like to know what we think of it.

Our first installation was a 40 horse power Fairbanks & Morse Diesel Oil Field Engine, it was set at our Settles "B" No. 1 which is located in the Dora Roberts Pool, Howard County, Texas. This well is producing from the pay zone found at 2900 feet, equipped with 3 inch tubing, 3/4" and 7/8" sucker rods, the oil is heavy, being of 27 gravity. This engine has been in continuous operation since its installation and has certainly performed to our satisfaction.

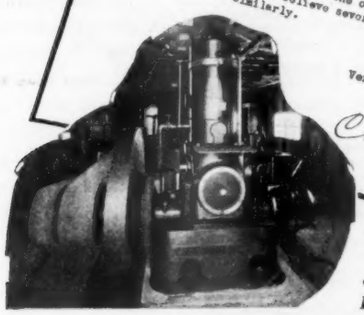
The fuel situation in West Texas is quite a problem and the Diesel engine entirely solves it, cost of operation is exceptionally low and performance very high. This engine consumes 40 gallons of crude oil per day and approximately 2½ quarts of oil, bringing the total cost to 93¢ per day - an average of $28.29 per month over a period of one year. That performance is unusually high is shown in the fact that our records disclose no shut down time charged to the engine during the three months it has been running.

The results of the first installation have been so satisfactory that we have added several more of these engines and expect to so equip our other wells as quickly as completed.

This installation has been viewed by a large number of production men who are well known in the oil fraternity and each of them seemed completely sold, I believe several are going ahead with plans to equip their wells similarly.

Very truly yours,

C. L. Sutton



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Gas Engines Compressors
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ARMCO MONEL

—

McCord Radiator & Mfg. Co.
DETROIT

Witt's No. 1 Olsen, C SE NW Sec. 14-22-6w .....Rig.
Skelly Oil Co.'s No. 1 Birkett, NE SW Sec. 30-24-7w ....Drlg. 3,260 ft.
Milmac Oil Co.'s No. 1 Strickley, SW cor. NW Sec. 17-26-5w .....Underreaming 6-in. csg. 3,658 ft.

RICE COUNTY

Burgher's No. 1 Fair, C SE NE NE Sec. 14-21-10w ....Rig on ground.
Derby Oil Co.'s No. 1 Johnson, C NW NE SE Sec 24-20-6w .....Drlg. 2,240 ft.
Milmac's No. 1 Cain, C SE Sec. 29-19-7w .....Drlg. 1,650 ft.
Allison & Fitzwilliams' No. 1 Poland, NE cor. SW NE Sec. 36-19-8w .....Cellar.
Higgins & Steinbuchel's No. 1 Shurr, NE cor. SW Sec. 21-20-10w .....3,278-80 ft.; 100 bbls. showing; testing by swabbing; shut down.
Curtis et al's No. 1 Green, C NW Sec. 33-19-6w .....Location.
Danciger et al's No. 1 Bell, C SW Sec. 16-19-8w .....Location.
Langston et al's No. 1 Shumway, C SW Sec. 2-20-9w ...Location.
McCullough et al's No. 1 Williams, C NE Sec. 35-20-8w..Rig on ground.

RILEY COUNTY

Arkansas Fuel Oil Co.'s No. 1 Martin, SE NE SW Sec. 24-8-4 .....Rig.
Grey et al's No. 1 Smith, NE SE Sec. 30-6-6 .....Drlg. 1,970 ft.
Derby & Shaw's No. 1 Lindstrom, NE cor. Sec. 32-7-5e ..Drlg. 2,215 ft.

RUSSELL COUNTY

Midwest Exploration's No. 1 Benson, SW cor. Sec. 4-14-15w. .....Rig.
Prairie Oil & Gas Co.'s No. 1 Brungardt, C NW SE NW Sec. 31-12-15w .....Drlg. 1,185 ft.
Empire and Prairie's No. 1 Bocks, C SE NE NE Sec. 23-15-14w .....Drlg. 2,570 ft.

ROOKS COUNTY

Kruger et al's No. 1 Stela, NW SE SW Sec. 12-9-16w ..Shut down 50 ft.
Burford-Brim's No. 1 Toxa, Sec. 22-9-17w .....Shut down 725 ft.

RUSH COUNTY

Sinclair Oil & Gas Co.'s No. 1 Seur, C SW NW NW Sec. 8-18-17w .....Underreaming 3,840 ft.
Danciger Oil Ref. Co.'s No. 1 Swindt, SW cor. Sec. 22-17-17w .....Drlg. 3,850 ft.
Central Commercial Oil Co.'s No. 1 Brock, SE cor. SW SW Sec. 12-17-16w .....Shut down 50 ft.
Danciger Oil Ref. Co.'s No. 1 Pivonka, NE cor. SW NE Sec. 17-19-17w .....Fishing 3,840 ft.

SALINE COUNTY

Dixie Oil Co.'s No. 1 Thorstenburg, NW NE Sec. 10-16-3w .....Drlg. 1,940 ft.
Austin et al's No. 1 Olsen, NW SW SE Sec. 10-15-4w ..Drlg. 360 ft.
Pempleman's No. 1 Lanbengager, C SW Sec. 20-15-5w ..Drlg. 2,945 ft.
Twin Mounds' No. 1 Weis, NW NE NW Sec. 20-13-4w .....Drlg. 500 ft.
Dixie Oil Co.'s No. 1 Muir, C SW SE Sec. 6-15-2w .....Drlg. 3,390 ft.

SEDGWICK COUNTY

Fleeger D. F.'s No. 1 Ottaway, C SW NW Sec 16-28-2w..Rig.
C. B. Davis' No. 1 Kinkead, NE cor. Sec. 14-27-1 .....Drlg. 2,450 ft.
Marland and Amerada's No. 1 Sensroth, NW cor. Sec. 25-28-4w .....Drlg. 2,880 ft.
Boyle's No. 1 Sandusky, NW NE SE Sec. 34-26-1w ....Drlg. 2,175 ft.
Lario O. & G. Co.'s No. 1 Calkins, SW cor. SE Sec. 7-27-2e .....Drlg. 3,378 ft.
E. W. Marland's No. 1 Huggins, SE NW SW Sec. 30-27-2 .....Show water 2,958-66 ft.
Johnson & Marshall's No. 1 Roy, NE cor. SE SW Sec. 23-29-1w .....Fishing 3,850 ft.
Lario O. & G. Co.'s No. 1 Teachorff, NE cor. SW Sec. 27-29-1w .....Drlg. 3,415 ft.
Kyle et al's No. 1 Pinney, SW NW SE Sec. 29-28-1w ....Shut down 50 ft.
Twist et al's No. 1 Armstrong, NE NW Sec. 28-26-1e ...Rig; spud.; shut down.
Barnett O. & G. Co.'s No. 1 Davidson, NW cor. NW SW Sec. 27-26-1e .....Underreaming 2,720 ft.
Kellar & Lewis' No. 1 Buckles, NW cor. SE Sec. 3-28-1w..Fishing 975 ft.
Twist et al's No. 1 Joseph, CNL SW SE Sec. 4-25-1w ....Shut down 1,980 ft.
Washabaugh et al's No. 1 Harrison, NW cor. NE NE Sec. 3-26-2w .....Drlg. 2,890 ft.
LaFont et al's No. 1 Carlton, C SE SE SW Sec. 24-28-1e..Shut down 1,685 ft.

SHAWNEE COUNTY

Jenkins & Scott's No. 1 Unknown, NW NE Sec. 28-10-15 .....Rig.
Jenkins & Scott's No. I Haden, NE SE Sec. 8-12-14 ....Rig.
Omar O. & G. Co.'s No. 1 Allen, SE NE NW Sec. 2-11-14 .....Drlg. 700 ft.

SHERIDAN CAUNTY

Mandalin O. & G. Co.'s No. 1 Unknown, C SE SW SW Sec. 27-7-26w .....Rig.

SHERMAN COUNTY

A. L. Henson et al's No. 1 Murry, NE cor. SE NW Sec. 23-7-40w .....Shut down 3,035 ft.

STAFFORD COUNTY

Phillips Petroleum's No. 1 Houghton, SW cor. Sec. 20-21-12w .....Spudding.

STEVENS COUNTY

McKenna's No. 1 Unknown, C NW NW Sec. 29-33-36w ..Spudding.
Trees Oil Co.'s No. 1 Thompson, C NE SW Sec. 3-35-38w..Shut down 500 ft.
W. Sidwell et al's No. 1 Kelly, SW cor. NE Sec. 16-34-38w .....Shut down 1,320 ft.

SMITH COUNTY

Phillips Pet.'s No. 1 Clydesdale, SE NW Sec. 23-5-14w ....Drlg. 2,690 ft.

SUMNER COUNTY

Slick et al's No. 1 Peasel, NW cor. Sec. 33-31-1w .....Rig.
Lario O. & G. Co.'s No. 1 Henderson, NW SW Sec. 21-30-1w .....Drlg. 675 ft.
E. K. Carey & Larado Oil Co.'s No. 1 Welsch, SW SE Sec. 9-34-1e .....Drlg. 2,340 ft.
Mid-Continent Pet. Corp.'s No. 1 Clark, SE cor. Sec. 31-34-3w .....Drlg. 4,210 ft.
Shell Pet. Corp.'s No. 1 Armstrong, NE cor. Sec. 12-33-1e.Drlg. 1,860 ft.
Davidson et al's No. 1 Strickland, SW cor. SE Sec. 12-35-1w .....Rig.

TREGO COUNTY

Prairie Oil & Gas Co.'s No. 1 Kutina, C NE SW NE, Sec. 29-15-21w .....Drlg. 800 ft.
Producers & Refiners Corp.'s No. 1 Kingsley, C SE NW NW Sec. 24-14-21w .....Rig on ground.
Phillips Pet. Co.'s No. 1 Spitz, SE cor. Sec. 24-12-25w....Drlg. 750 ft.
Mid-Kansas' No. 1 Ridgeway, NE SW Sec. 28-12-21w ....Drlg. 2,575 ft.
Day et al's No. 1 Gugler, SW NE NE Sec. 36-12-21w .....Shut down 50 ft.
Day et al's No. 1 Unknown, NE NW SW Sec. 2-11-21w ....Shut down 2,910 ft.

WASHINGTON COUNTY

McCool & Vincent's No. 1 Linn, NW cor. NE Sec. 27-4-3..Drlg. 2,425 ft.

WALLACE COUNTY

Morton & Entyre's No. 1 Parker, SE cor. NW SW Sec. 20-13-41w .....Spudded; shut down.

WILDCAT OPERATIONS IN NEBRASKA

FRANKLIN COUNTY

U. R. Drlg. Co.'s No. 1 Brunkle (twin well), C NW SW NE Sec. 2-3n-13w .....Rig.

CHASE COUNTY

Chase Pet. Co.'s No. 1 Ingold, C NE Sec. 24-4n-38w ....Drlg. 4,075 ft.

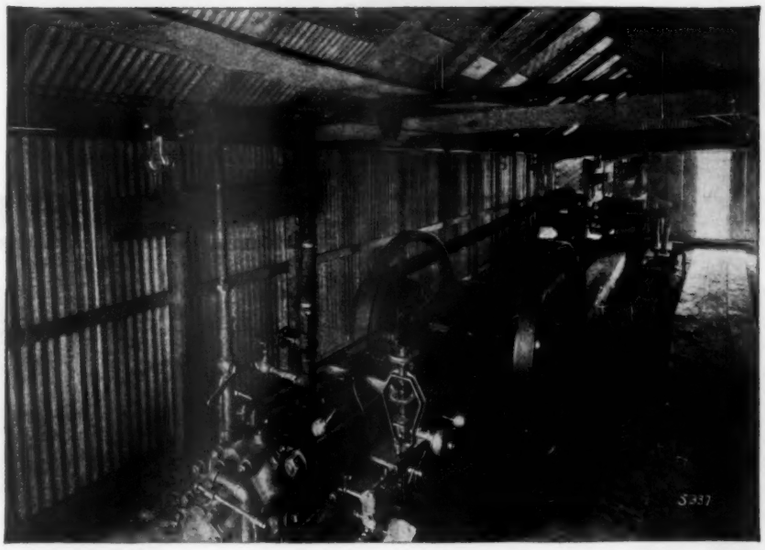
FURNAS COUNTY

Southwestern Pet. Corp. of Nebraska's No. 1 Montague, SE SW SW Sec. 28-1n-22w .....S. D. 1,750 ft.
Graham Bros.' No. 1 Edwards, NW SW Sec. 13-2n-22w..Shut down 3,150 ft.

WEBSTER COUNTY

Mid-States Exploration Co.'s No. 1 Platt, C SE one-half Section 3-1n-11w .....Shut down 555 ft.

Franklin Valveless Oil and Gas Engines



Facts Are the Yard Stick of Value

After all it isn't talk but actual facts that tell you how good a drilling engine is—here are some facts—

J. R. Robertson of Wichita, Kansas, owns and operates two new OF 80 HP Oil Drilling Engines and two BG Clutches.

The engine shown is on its second location at Creson No. 1—¾ of a mile north of Valley Center. On this engine's first well they set 255 ft. of 15″ pipe, 1370 ft. of 12″ pipe, 2433 ft. of 10″ pipe, 2700 ft. of 8″ pipe and 3200 ft. of 6″ pipe, completing the well at 3466 ft. The well was started Feb. 3rd and finished Apr. 12th—actual drilling time not recorded. The fuel used was distillate 38-40 gravity. The average consumption was 35 gals. per 24 hours. At present Robertson's two engines are handling 9-inch bailers 60 ft. long in 10-inch holes.

Robertson says in a letter to us—"We have found this equipment to be very satisfactory for cable tool drilling, easy on belts and wire lines, also very economical on fuel and lubricating oils. Up to the present time we haven't spent a single penny for repairs on these outfits."

Franklin Valveless Engine Company
Franklin, Penna.

PRICES

40 HP Type OF Franklin, including water circulating pump and pulley. *$1550 F.O.B. Franklin*

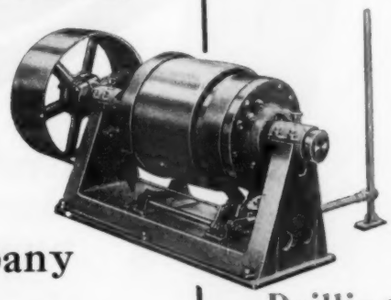
50 HP Type OF Franklin, including water circulating pump and pulley. *$2050 F.O.B. Franklin*

80 HP Type OF Franklin, including water circulating pump, pulley and air starting equipment. *$3200 F.O.B. Franklin*

NOTE—Type OF is readily converted into type OG for gas fuelization.

Some of the Franklin OF Good Points

- Enclosed type
- Low fuel consumption
- 100% interchangeability
- Simplicity
- Piston rod is fitted with metallic packing which never needs adjusting or replacing
- Every spring exposed
- Complete simplicity with practically no adjustment
- In case of belt breakage engine automatically stops
- Fuel pump driven by eccentric running in oil bath
- Bearings are removable and reversible
- Only standard threads used. No special wrenches required
- Cylinder has 3 point, force feed lubrication
- Balance of lubrication is splash feed
- Pistons are air cooled
- All nuts subject to vibration are castillated and fastened with cotter pins
- Most economical to operate in fuel, lubricant, water and repairs
- Easy to start



Type BG Clutch for Cable Tool Drilling or Pumping

- A vast improvement over the former type of clutches.
- Driven from pulley on engine. Permits the use of a larger diameter pulley and makes possible a slower clutch speed. Operates by hand lever on derrick.
- Construction and design prevent Reverse Clutch Troubles.

PRICE—$1200.00 F.O.B. Franklin, Penna.

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ODEE is a *real* pipe for gas or oil lines. It is seamless, rust-resisting steel, welded into double lengths. Every foot stands a high-pressure hydrostatic test of great severity. Lay a line of ODEE and let year-after-year performance prove its value!

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GREENSPON'S
PIPE FOR ALL PURPOSES

WILDCAT OPERATIONS IN OKLAHOMA

(Descriptions are East and North unless marked otherwise)

(Continued from Page 50)

GARFIELD COUNTY

E. L. Love and others' No. 1 White, SE cor. NW Sec. 9-24-6w ..... Shut down 5,566 ft.; repairing rig.

GRADY COUNTY

I. V. Bailey's No. 1 Hubbard, C NE NW Sec. 1-10-6w ... Spudded and shut down.
J. M. Henry and others' No. 1 Abraham, SE cor. NW Sec. 4-5-8w ..... Rig.

GRANT COUNTY

Bailey's No. 1 Stover, C SW SE Sec. 20-27-5w ..... Rig on ground.
Baucher et al's No. 1 Deadman, SW SE Sec. 12-28-4w .. Drlg. 2,830 ft.
Cowden and others' No. 2 Vollmer, CEL NE SW Sec. 22-25-4w ..... Shut down 5,640 ft.

GARVIN COUNTY

Gardner Pet. Co.'s No. 1 Halverson, SW cor. NE Sec. 8-4-2 ..... Shut down 4,055 ft.

GREER COUNTY

Helmerick & Payne's No. 1 Henck, NW cor. Sec. 23-6-24w. Shut down 1,240 ft.
I. T. I. O. and others' No. 1 fee, C SW NE Sec. 17-6-24w ..... Shut down 1,902 ft.
S. M. Stauffer's No. 1 Castleman, SW NE Sec. 8-4-26w .. Shut down 625 ft.

HARMON COUNTY

I. T. I. O. Co.'s No. 1 fee, C SW SE Sec. 17-5-24w ..... Rig.

HARPER COUNTY

Sinclair Oil & Gas Co.'s No. 1 Howell, C SW SW Sec. 14-26-24w ..... Drlg. 4,130 ft.

HASKELL COUNTY

Holden's No. 1 Phillip, SE cor. Sec. 3-9-18e ..... Shut down 1,200 ft.
Marion Oil's No. 1 Sanders, NW NE SW Sec. 10-9-18e.. Shut down 2,357 ft.
Sanboise Gas' No. 1 Unknown, SW NW SE Sec. 32-9-21e.. Shut down 2,100 ft.

HUGHES COUNTY

Wright et al's No. 1 Ott, SE SW Sec. 15-5-11 ..... Rig.
Canady et al's No. 1 Kanard, NW SW Sec. 29-9-13 ..... Rig.
Irwin et al's No. 1 Jones, SE NW Sec. 30-5-10 ..... Rig on ground.
McCullouch Oil Co.'s No. 1 Scott, NW NE Sec. 23-6 8..... Rig.
Whitney et al's No. 1 Moore, SE SW Sec. 17-5-9 ..... Fishing 3,936 ft.

JACKSON COUNTY

Altus Oil Co.'s No. 1 Northington, NE cor. NE Sec. 4-1-20w ..... Shut down 2,020 ft.

KINGFISHER COUNTY

Superior Oil Co.'s No. 1 Story, SE cor. Sec. 25-19-5w .... Fishing 6,255 ft.
Galt Brown's No. 1 Wolf, NW SE Sec. 6-16-7w ..... Drlg. 5,640 ft.
McKenna & Crawford's No. 1 Sturgeon, NE cor. SW Sec. 27-16-6w ..... Shut down 4,895 ft.

KIOWA COUNTY

Dean & Adkinson's No. 1 Kent, NW cor. Sec. 6-5-14w .. Location.
Hyde et al's No. 1 Jones, SE cor. Sec. 23-3-18w-50 ..... Shut down 490 ft.
S. H. Christian's No. 1 Stone, SE cor. Sec. 18-7-18w .... Rig on ground.
Merrick Oil Co.'s No. 1 Kelly, NW cor. SE Sec. 20-7-17w.. Shut down 1,035 ft.
McWharter and others' No. 1 Sherwood, CWL NW NE Sec. 2-5-17w ..... Shut down 1,100 ft.

LEFLORE COUNTY

Red Bank Oil Co.'s No. 1 fee, SE SW NE Sec. 23-9-24 .. Drlg. 4,652 ft.

LATTIMER COUNTY

Limestone O. & G. Co.'s No. 1 Shaw, NW cor. NE NW Sec. 23-5-18e ..... Drlg. 1,240 ft.
Limestone Oil & Gas Co.'s No. 1 McMurray, SW cor. SW Sec. 15-5-18 ..... Sandy lime 3,950-54 ft.; 2,000,000 ft. of gas; pulling big pipe.

LINCOLN COUNTY

Morgan & Flynn's No. 1 Johnson, SW NE Sec. 1-16-5... Rigging
Phillips Pet. Co.'s No. 1 Stephens, SE cor. NW Sec. 29-12-3 ..... Drlg. 3,000 ft.

LOGAN COUNTY

Haley & Smith's No. 1 Guier, SE cor. SW Sec. 33-18-3w.. Shut down 3,970 ft.

McINTOSH COUNTY

Western Natl. Gas's No. 1 Wells, CEL SE NW Sec. 15-11-17 ..... Drlg. 550 ft.
Holden's No. 2 Phillips, C SE SE Sec. 3-9-18e ..... Shut down 1,190 ft.
Spring Valley Oil Co.'s No. 1 Carr, SE cor. NE NW Sec. 16-10-13e ..... Shut down 2,508 ft.
Patterson and others' No. 1 Smith, SW cor. NW SE Sec. 32-9-16 ..... Shot 240 qts. 5,446-5,559 ft:; shot went off up hole; fishing.

MAJOR COUNTY

Earl and others' No. 1 Turner, C NE NE Sec. 23-20-14w.. Rig.
Wilson and others' No. 1 Unknown, NE cor. NE Sec. 4-23-16w ..... Abandoned 510 ft.

MUSKOGEE COUNTY

Sioux Oil Co.'s No. 1 Unknown, NW SE Sec. 21-11-19 ... Shut down 600 ft.
Cooper-Badget's No. 1 Young, NW NE NE Sec. 7-12-20e.. Shut down 50 ft.

NOBLE COUNTY

Peerless et al's No. 1 Wentz, NW SW Sec. 22-22-1 ..... Rig.
Gypsy Oil Co.'s No. 1 Bailey, C NE NE Sec. 24-22-1e .. Drlg. 4,661 ft.
Magnolia Petroleum's No. 1 King, C SE SW Sec. 26-20-1w. Rigging up standard tools 4,343 ft.

OKFUSKEE COUNTY

Henry Oil Co.'s No. 1 Harjo, Sec. 36-12-9 ..... Drlg. 850 ft.
Shepard et al's No. 1 Neveas, SE NW SW Sec. 3-12-10 ... Drlg. 795 ft.
Superior and others' No. 1 Carolina, SE cor. Sec. 6-11-7e ..... Drlg. 4,355 ft.

OKLAHOMA COUNTY

Ryan & Martin's No. 1 Lawton, NE NW Sec. 3-11-2w .. Rig.
Tom Slick Oil Co.'s No. 1 Martin, C NW NW Sec. 13-13-1w ..... Drlg. 5,460 ft.
Mid-Kansas' No. 1 Trosper, NE NW Sec. 19-13-1w ..... T. D. 6,904 ft.; P. B. 6,140 ft.
Hall & Briscoe's No. 1 Holmes, NE cor. SW SE Sec. 10-11-3w ..... Shut down 4,750 ft.

PITTSBURG COUNTY

Galbreath's No. 1 Snyder, C W half SW Sec. 28-4-13 .... Shut down 100 ft.
Empire O. & R. Co.'s No. 1 Williams, C NE SE Sec. 33-7-16e ..... Drlg. 200 ft.
Kerr & Koy's No. 1 Hall, C NW NW Sec. 32-4-12 ..... Drlg. 2,580 ft.

PONTOTOC COUNTY

Indian Territory Illuminating Oil Co.'s No. 1 McFarland, NW cor. Sec. 4-5-5 ..... Spudding.
Indian Territory Illuminating Oil Co.'s No. 1 Shoate, C NE SE Sec. 1-4-4 ..... Location.
Independent and Shaffer's No. 1 Moses, NE SE SW Sec. 10-5-4 ..... Rig.

POTTAWATOMIE COUNTY

Empire O. & R. Co.'s No. 1 McKown, SW NW Sec. 25-8-4 ..... Drlg. 2,495 ft.
Keister & Manning's No. 1 Tibbs, NE SW Sec. 9-8-4 .... Drlg. 3,030 ft.
Amerada's No. 1 Vineyard, NW NE NE Sec. 15-7-3 ..... Drlg. 4,340-46 ft.; 170 bbls. show.
Gypsy Oil Co.'s No. 1 Randosh, NW NE Sec. 23-6-4 ..... Fishing 3,763 ft.
Frank Moore's No. 1 Fundis, SE NE Sec. 19-7-3 ..... Location.
Phillips Pet. Co.'s No. 1 King, NW cor. Sec. 26-8-4 ..... Wilcox 4,525-30 ft.; water; shut down.
Shaffer and Margay's No. 1 Murphy, NW NE Sec. 11-6-3 ..... Drlg. 4,380 ft.
Cal-Cul Oil Co.'s No. 1 McKnight, NW cor. NE NW Sec. 8-8-3 ..... Drlg. 4,320 ft.

ROGER MILLS COUNTY

L. C. Hivick's No. 1 Davis, C NW NE Sec. 4-11-26w .... Drlg. 1,547 ft.

SEMINOLE COUNTY

Sunray Oil Co.'s No. 1 Sunday, NW SE Sec. 25-5-5 .... Location.
McCullough Oil Co.'s No. 1 Luckett, NE NW Sec. 28-10-5.. Drlg. 4,450 ft.
Prairie & Slick's No. 1 Bettsey, NW SW Sec. 36-6-6 .... Drlg. 2,125 ft.
Harris' No. 1 Harjocke, SE NE SE Sec. 8-6-6 ..... Drlg. 1,700 ft.
Prairie's No. 1 Mingo, NW NE Sec. 25-6-6 ..... Drlg. 2,565 ft.

SEQUOYAH COUNTY

Hunt and others' No. 1 Unknown, SE cor. NW SW Sec. 12-12-23 ..... Drlg. 1,250 ft.

Satisfaction *is the result of using* BREWSTER *Products*

Herbert Spencer said: "There is a principle which is a bar against all information and which will keep a man in everlasting ignorance: that principle is contempt prior to investigation."

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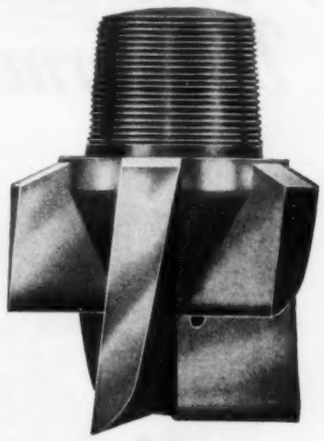

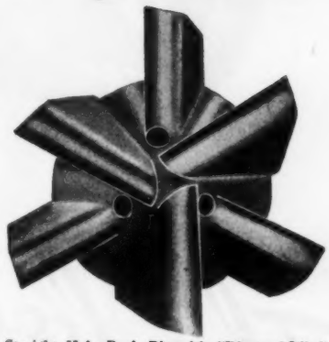

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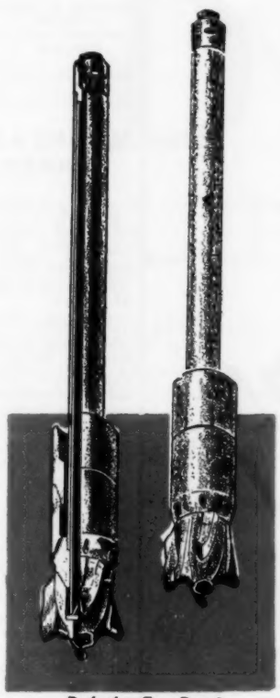

Perfection Core Barrel

A.P.I. Fish Tail Bit

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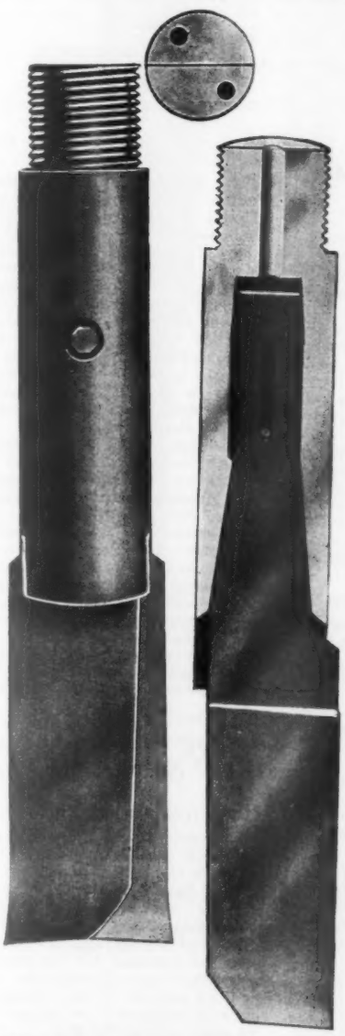

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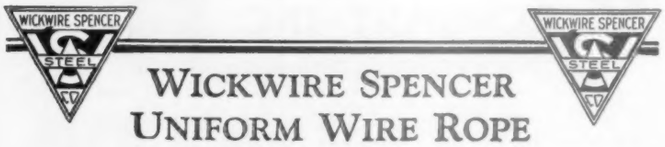


WICKWIRE SPENCER
UNIFORM WIRE ROPE

Buffington and others' No. 1 Melcher, C SW NW Sec. 31-12-24 ....Shut down 3,000 ft.

WOODS COUNTY

Peerless O. & G. et al's No. 1 Cromwell, SW SE Sec. 14-28-16w ....Shut down 1,500 ft.
S. K. Miller's No. 1 Copenhavers, NW cor. NW Sec. 18-24-13w ....Rigged up and shut down.
Gypsy-Prairie and others' No. 1 Thompson, SE cor. SW Sec. 10-25-15w ....Drlg. 5,832 ft.
Sinclair Oil & Gas Co.'s No. 1 Steward, C SW SW Sec. 33-27-16w ....Drlg. 5,202 ft.

WOODWARD COUNTY

Farrond et al's No. 1 Unknown, SE cor. SW SE Sec. 2-23-17w ....Shut down 1,387 ft.
Prairie Oil & Gas Co. and others' No. 1 James, NE cor. NW Sec. 23-23-17w ....Drlg. 5,100 ft.
Billy's Oil Co.'s No. 1 Watt, C SE Sec. 9-23-20w ....Drlg. 4,120 ft.
Burgoyne Brothers' No. 1 Merkins, SW cor. SE NE Sec. 15-21-19w ....Shut down 1,910 ft.

SOUTHERN OKLAHOMA

BRYAN COUNTY

Marshall et al's No. 1 fee, SE NW NW Sec. 26-5s-7 ....Shut down 600 ft.
Yale Oil Syndicate's No. 1 Craige, C NW NE Sec. 36-9s-9e ....Shut down 1,700 ft.

CARTER COUNTY

L. J. Woodruff's No. 1 Zellnear, NE cor. NW SE Sec. 34-4s-1 ....Shut down 2,200 ft.
Avon-Dickey's No. 1 Anderson, NE cor. SE NE SE Sec. 32-4s-2 ....Shut down 420 ft.

CHOCTAW COUNTY

Dean & Adkinson's No. 1 Kent, NW cor. Sec. 6-5s-14 ....Location.
Choctaw Petroleum Co.'s No. 1 Wilson, SW cor. SW Sec. 15-6-19e ....Shut down 1,346 ft.

COMANCHE COUNTY

Bridwell Oil Co.'s No. 1 Porter, NE SE SE NW Sec. 17-1-11w ....Drlg. 1,800 ft.

COTTON COUNTY

Fain & McGaha's No. 1 Mason, NW SW SW Sec. 29-4s-11w ....Drlg. 3,505 ft.

JEFFERSON COUNTY

Danciger et al's No. 1 Dilley, SE NW Sec. 11-5s-7w ....Rigging up to drill deeper.
Gypsy Oil Co.'s No. 1 Smith, C SW SE SE Sec. 2-7s-7w..Drlg. 285 ft.

JOHNSTON COUNTY

Smith & Knisely's No. 1 Lane, E half Sec. 29-1s-7 ....Shut down 2,090 ft.

McCURTAIN COUNTY

Utopia Pet. Co.'s No. 1 Unknown, SE NW Sec. 14-9s-25 ..Location.
Milton et al's No. 1 Vase, SW NW Sec. 26-6s-21 ....S. D. 1,385 ft.

MARSHALL COUNTY

Westheimer & Daube's No. 1 Monsenberg, SE SW Sec. 26-7s-5 ....Drlg. 372 ft.

STEPHENS COUNTY

Porter & Monahan's No. 1 Robberson, SE NW Sec. 23-3s-4w ....Drlg. 1,689 ft.

TILLMAN COUNTY

Cochran & Ridgway's No. 1 Barnes, C NW NE Sec. 16-4s-14w ....Cellar.
Landfair and others' No. 1 Smith, SE SW SE Sec. 6-2s-16w ....Shut down 2,535 ft.

OKLAHOMA PANHANDLE

Skaer's No. 1 Hitch, NW cor. Sec. 25-1-15e ....Shut down 250 ft.

MAKING A NEW TYPE SUCKER ROD ELEVATOR

(Continued from Page 87)

to handle the longest string of rods now used in any well. The light type will handle strings of five-eighths and three-quarters inch diameter and weighs about 18 pounds.

The construction of the elevator is simple and is practically fool proof, for with the latches in the open position the sucker rods can be engaged by pushing the elevator against the rod. This action trips the latches to their closed position and locks the rod in by means of a pawl which acts in conjunction with the opening of the latches. The sucker rods cannot be released unless the pawl has been withdrawn by hand pressure on the handle and the elevator slacked off sufficiently to raise the shoulder of the sucker rod above the shoulder recess in the top of the elevator body.

Weight Carefully Distributed

These interlocking features contribute to the safety of this device. The weight of the sucker rods rests directly on the latches and in turn is distributed throughout the entire body of the main casting by means of a bearing member inserted between the latches and the inner side walls of the elevator body. The hole in the latches through which passes the pin that forms a fulcrum for the movement of the latch is made large enough to permit the latch to move outward to engage the bearing member, so that there is no shear in these pins at any time.

The movement of the latches is forward. Dirt and foreign material that may be scraped or knocked off the rods are carried away from the body of the elevators, so they are largely self-cleaning, thus reducing the possibility of sticking.

To make certain that the swirl of the rods as they were pulled out of the hole was not fast enough to force the latch open tests were made at over 500 revolutions per minute of the elevator and the spring did not compress to permit movement of the latches. In actual operation the rods will not swirl at any time over 250 revolutions per minute so the danger of opening the latches by this means virtually is eliminated.

Other Oil Field Equipment

The Shaffer Specialty Co., headed by Ernest J. and George W. Shaffer, has been located in Tulsa 10 years. During the last three years it has been devoting special attention to the manufacture and distribution of the Bear Cat hoist, which is made in three sizes, Junior and Senior for the 10-20 McCormick-Deering tractor and the Super hoist for the 15-30 McCormick-Deering tractor. This is an all purpose hoist or winch and used extensively in the oil fields for pulling rods and tubing and doing general work around the lease.

The company also manufactures and distributes Almetal Sand reel supports, the Safety swab sockets and fishing tools for pumping wells, casing clamps and sucker rod spiders, Fluid Seal liner barrel, Double Lock sucker rod hooks, Economy flow valves for flowing through the tubing, kick-off valve for flowing through the casing, high pressure casinghead and tubing supports for air and gas lifts and the Dean safety boiler gauge cock.

The designers of the Taylor-Mildren safety sucker rod elevators are reported to be working on the application of the same general principles to a tubing elevator.

SOLVE THE PROBLEMS OF WINKLER COUNTY

(Continued from Page 39)

water sent to the treatment tanks for heat and chemical treatment.

When the field was younger the problem of handling this water and oil was one that gave a great deal of concern to the operators and many unique types of flow and treating tanks were designed and put into test, but the general result with that type of equipment was poor, for the velocity of the current was not reduced sufficiently to permit the water to settle out of the oil.

Some of these treating tanks were filled with baffles and flumes and heating coils placed in positions where it was thought they would do the most effective heating of the oil and water, but it was not

Deep pumping

is

Successful

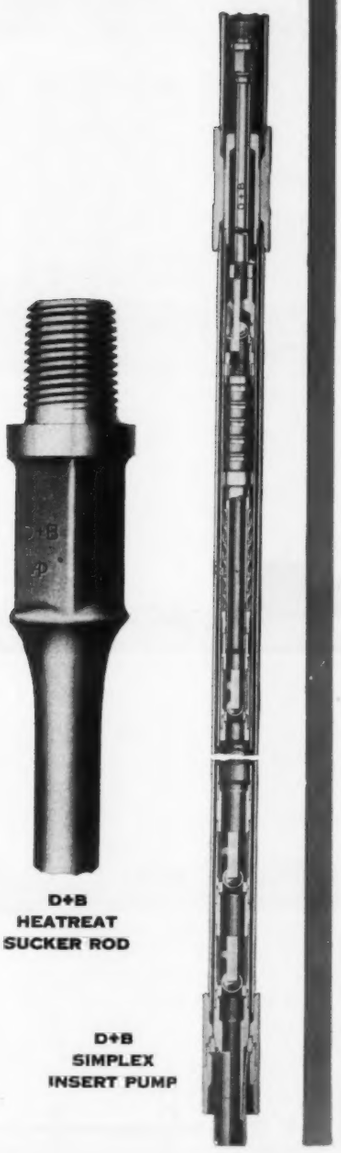
and

Economical

with

D+B

EQUIPMENT



D+B HEATREAT SUCKER ROD

D+B SIMPLEX INSERT PUMP

The D+B Simplex Insert Pump is a time saver in pumping deep wells. It pulls with the rods and the total time required to make replacements is only that of pulling and running-in the sucker rod string.

D+B heat treated Sucker Rods are making new records in lifting oil from deeper and deeper levels.

Write for further information.

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CHICAGO
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COMPANY
predicts that

The Cost of Drilling Oil Wells is going to take a Drop!

See Booth No. 71 at the
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**After Twelve Years Underground—
Not a Spot of Rust**

Here is a specific instance of VALDURA's superiority:

"The Lockport Light & Power Co. have been using VALDURA in their plant since 1916. Recently they dug up some gas service pipes painted with VALDURA twelve years ago. The VALDURA ASPHALT PAINT had been on this piping underground for twelve years and was in a perfect condition and apparently good for twelve additional years."

This is just one of the many instances reported to us daily testifying to the value of VALDURA ASPHALT PAINT as a long term preservative. A letter will bring you full information and an analysis of what you have a right to expect from your paint.

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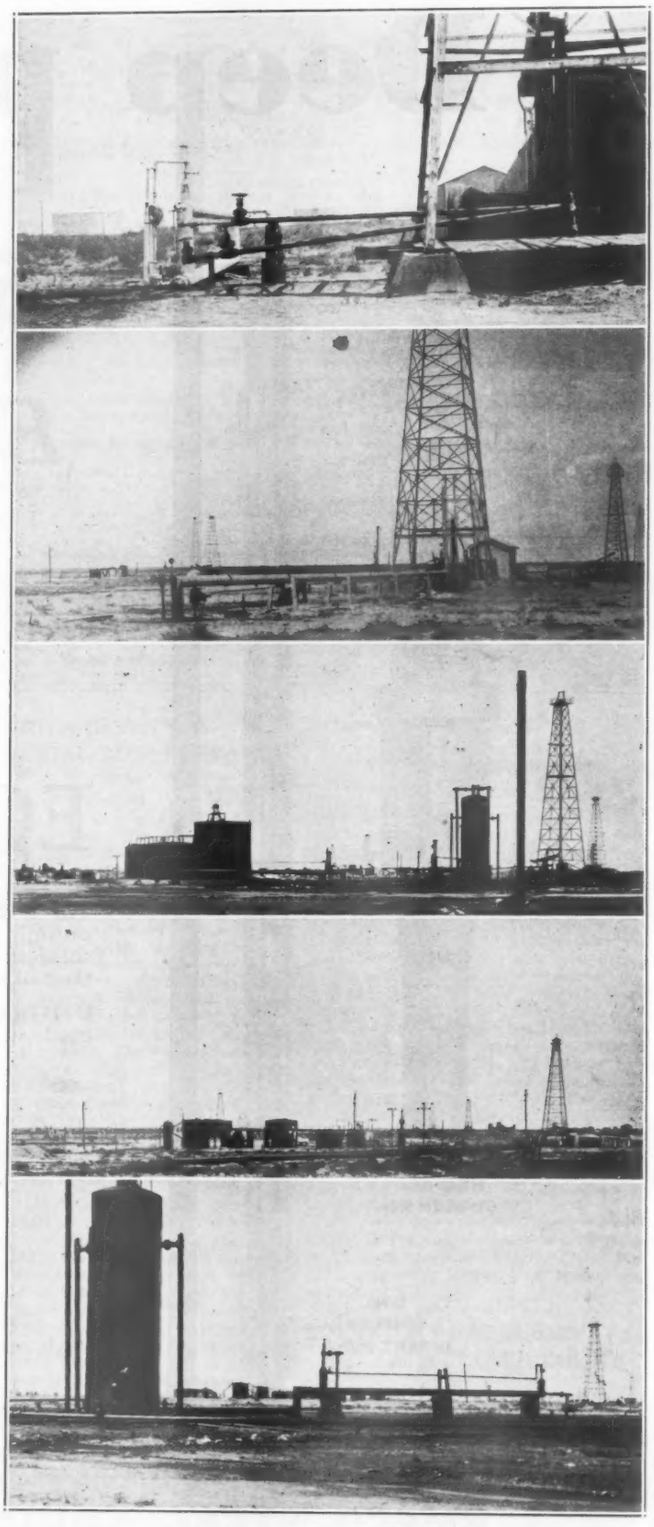
until the knockout pipe systems were devised that the separation was really satisfactory.

Disposal of Water

The water produced with the oil in this manner amounted to a very considerable quantity and one company had about 65,000 bbls. to handle daily from one lease and solved their problem by running 10,000 to 12,000 bbls. into cavity wells drilled for the purpose of taking this salt water while the balance was turned into open pits on the theory that it would evaporate in that very dry atmosphere.

These pits were made by scrapping the loose sand away from the top of the caliche and then drilling and blasting with dynamite that hard stratum so that the water turned into the pit could find easy outlet through the bottom. This seemed to help some, but it would appear that a good deal of the water finds outlet through the sand dikes thrown up around the pit and spreads out in the sandy soil outside and evaporates there.

In examining one of these evaporation pits it was noted that the ground around it for some distance was covered with dried precipitates in the form of tiny spires of dried salts which had the appearance of having been made by the



Types of water-knockout systems in use in the Winkler County, Texas, Field.

BE SQUARE TO YOUR MOTOR

Smooth

Power, without effort. Smooth as the gull in flight. Driving all day and at night your motor as fresh as at dawn, silently humming away the miles—*such is the experience of the motorist who is a constant user of Barnsdall BE SQUARE lubricants.*

No wonder the Jobber who is a Barnsdall distributor makes money. He has products that are known for unmatched quality and the backing of a live, growing organization, with every sales help. Wire or write for details of Barnsdall-Jobber co-operation and why the Barnsdall Jobber will make the most profit in 1929.

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From Oil Well to Jobber

SUPER-GAS the Anti-Knock non-poisonous motor fuel; BE SQUARE Gasoline; Naphtha; Furnace Oil; Gas Oil; Fuel Oil; BE SQUARE Motor Oils; Cylinder Stocks; Bright Stocks; Red and Pale Oils; Wax; and Petroleum.

All grades of Lubricating Oils.

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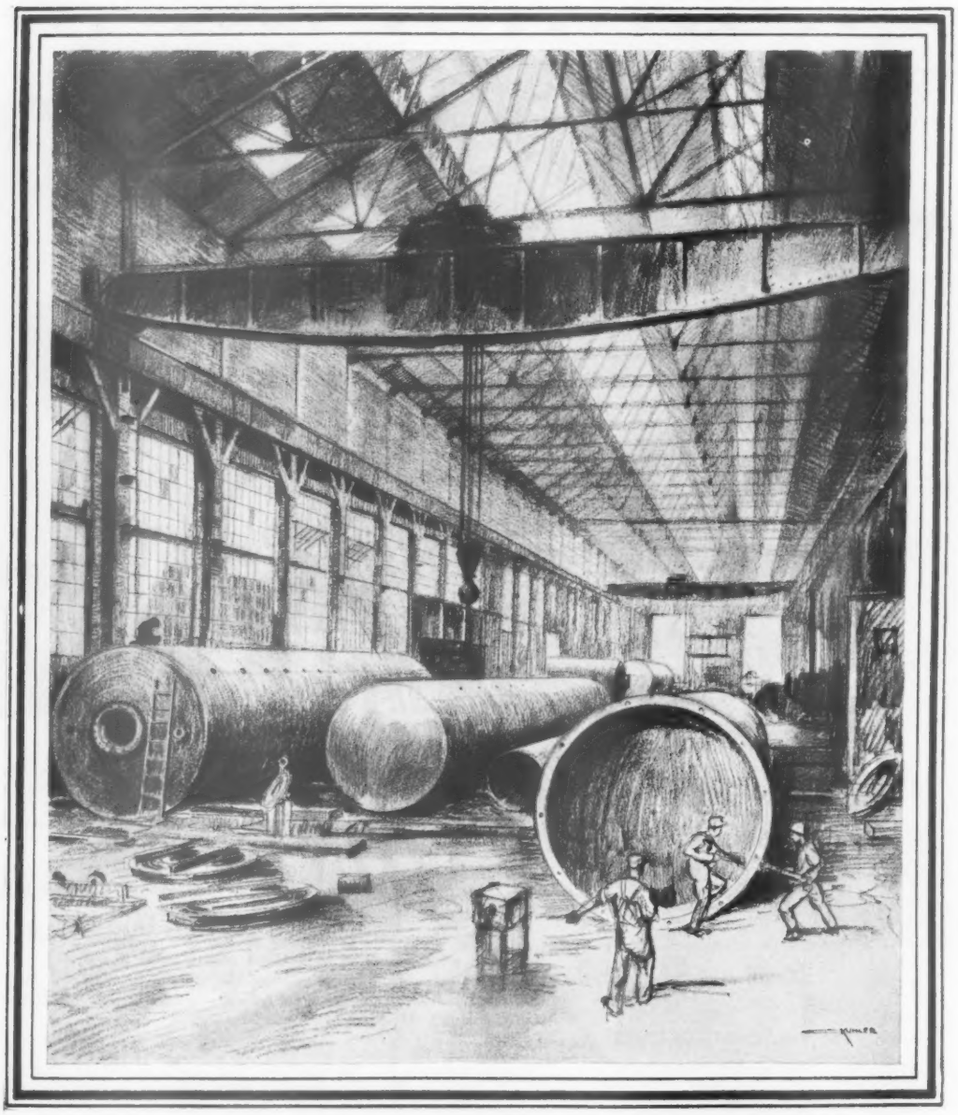

The KELLOGG MANUFACTURING STANDARD
PROVIDES UNEQUALLED EQUIPMENT VALUES

Throughout this country and in foreign fields, the performance of Kellogg equipment is establishing new refining records. This success is largely due to the exacting standards of design and workmanship maintained throughout the Kellogg organization.

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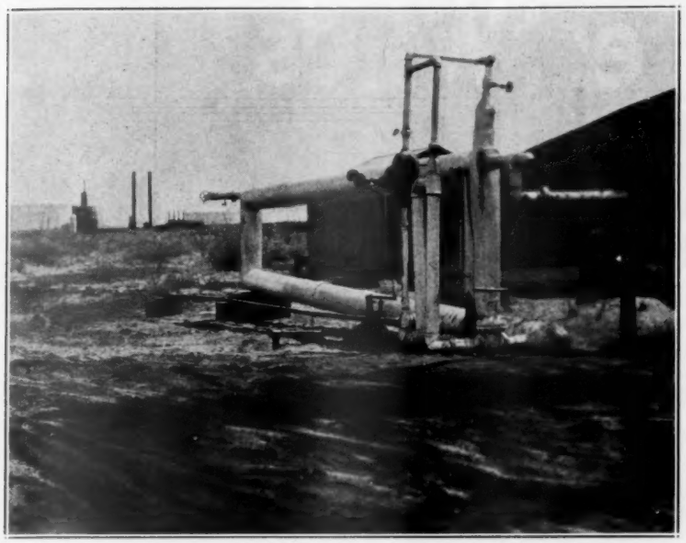
capillary action of the water in traveling upward through the sand and being evaporated by the wind and sun and leaving its solids behind.

It is stated that one company has laid a 6-inch pipe line to carry its salt water to an old lake bed about 6 miles east of the field where it was anticipated that it would form a new lake and gradually fill the basin. However, it was found that the water soon formed a channel to a crevice in the rock and disappeared and no lake has been formed to this date although many millions of gallons of water has been poured into this crack in the earth's surface.

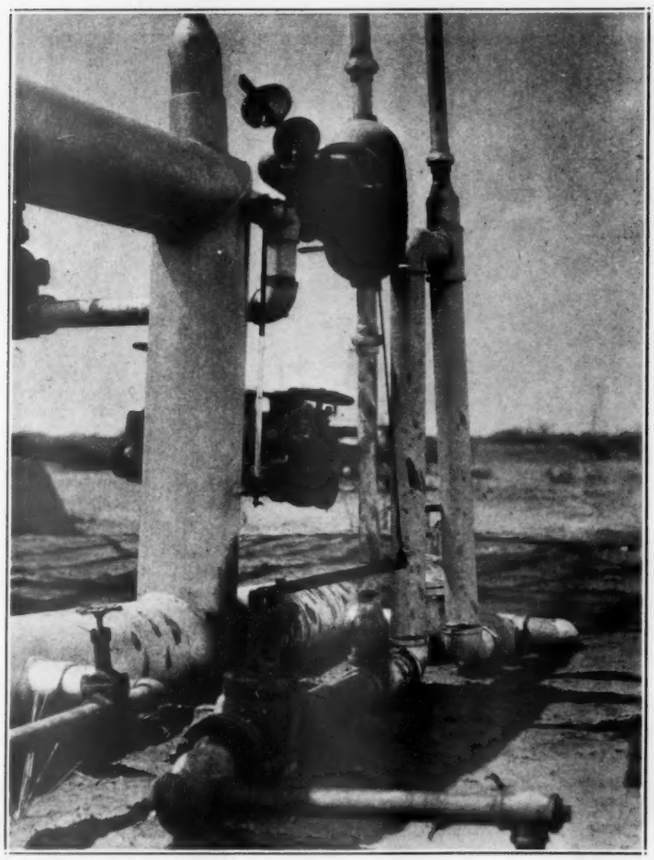
Below the caliche is largely red bed formation and a mixture of sand and gravel and the water seems to find a natural reservoir in these beds and dye tests have been made to trace the flow of the stream underground but as it has never shown up in any wells adjacent to the pits in the field it is not known where it does finally come to rest.

In some cases the wells have come in so quickly that it was impossible to withdraw the rotary drill pipe and some of these wells produced through this drill pipe for some time. It acts very much as does the string of tapered tubing, and in one instance a core barrel was on the bottom of the string of drill pipe and in others the usual type of rock bit was in place.

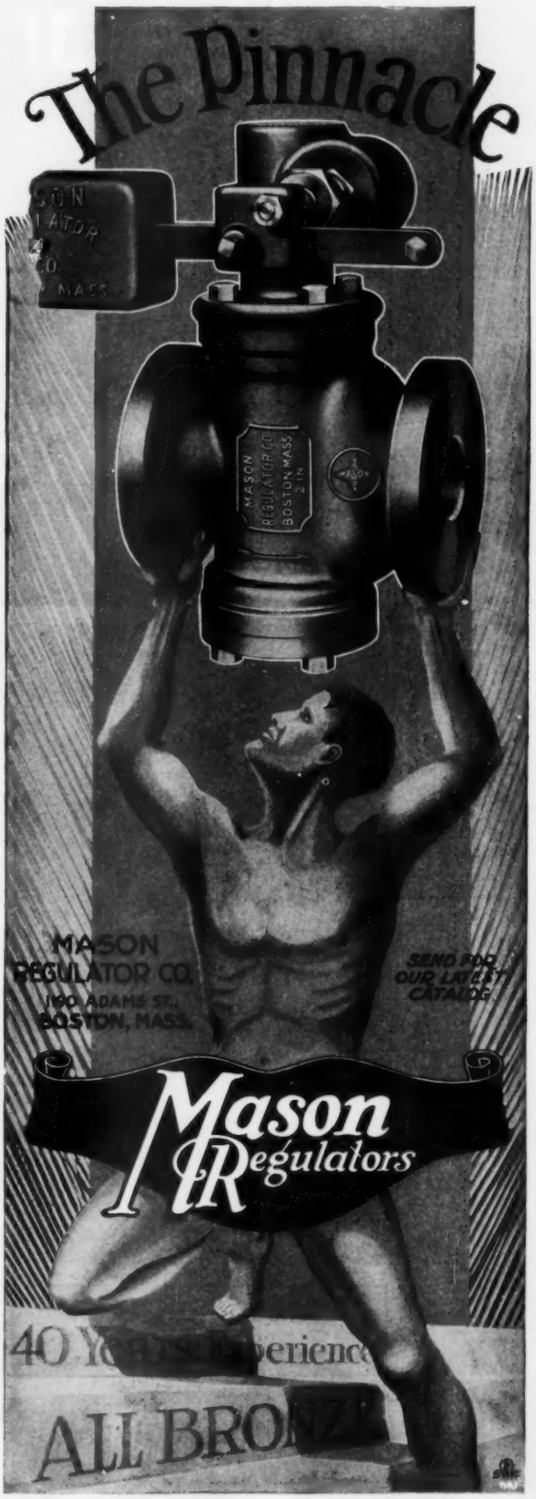
One well made a flow of 60,000 bbls.



Water knockout used by Shell Petroleum Corp. in Winkler County, Texas.



Close up of float and valve on water knockout designed by Shell Petroleum Corp. engineers, in Hendricks Pool, Winkler County, Texas. Note the water gauge glass and showing of oil in upper end.



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Cities Service Gas Company's Mooreland, Oklahoma, natural gas compressor station contains four Cooper 1000 B. H. P. twin-tandem gas engines.

COOPER

"GOOD FAITH"

Cooper engines are built in standard sizes from 50 to 1500 B. H. P. for direct driving compressor cylinders.

GOOD Faith is the quality which leads you to say of a man: "His word is as good as his bond." It is the fundamental principle on which every accepted form of money and credit, every trusted financial institution, every leading manufacturing business is established.

In the engine business "good faith" means confidence built on knowledge of the company and its product. It is not difficult to understand the loyal attitude of Cooper customers when you know the complete satisfaction they have had.

To appreciate the full meaning of "good faith" in engine buying, say *"Coopers"* for that next installation.

THE COOPER-BESSEMER CORPORATION
Formerly The C. & G. Cooper Co. and The Bessemer Gas Engine Co.
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CF Regulator

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Maintains constant level under all conditions of temperature and pressure. May be used to control the outlet or inlet flow.

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VIGILANT
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The H-H Inhalator

THE H-H INHALATOR

A Valuable Resuscitation Device for the Oil and Gas Industries

The H-H Inhalator is a resuscitation device for administering Carbogen (95% of Oxygen and 5% Carbon Dioxide) to those overcome by

Petroleum Vapors
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Smoke, Fumes and Other Causes

When respiration has stopped, artificial respiration by the manual prone pressure method should be employed to start spontaneous breathing. This effort should be assisted by administering Carbogen simultaneously from the H-H Inhalator.

The H-H Inhalator is officially approved by the American Gas Association and is widely used by oil companies at refineries, in the field and on tank ships.

For complete information write for Bulletin No. 80.

Mine Safety Appliances Co.

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"Everything for Mine and Industrial Safety"

per day when first finished in this manner, 6,000 to 7,000 bbls. of this oil flowing out through the drill pipe and the balance between the 4-inch pipe and the inside of the casing.

Wells make from 45 and 50 per cent water up to 99.2 per cent water, the last named type of wells making about 8 to 10 bbls. of oil daily along with the water.

Pumping to Agitate

It has been found that by pumping them from five to six hours daily to agitate the fluid in the hole they will flow the balance of the time naturally.

To cut off this great amount of water it has been found that the wells can be plugged back and in one case where the well was making 90 per cent water with an oil production of only 10 bbls. daily, a 25-foot cement plug topped with lead wool brought the oil production up to between 40 and 50 bbls. per day and reduced the percentage of water very materially.

Other wells were plugged back 20 feet and where they were making from 85 to 90 per cent water before the plugging job was done with about 70 bbls. of oil per day they are now making only about 10 per cent water with 100 bbls. of oil.

This seems to prove beyond doubt that this is largely bottom hole water and is probably due to the fact that in drilling very crooked rotary holes it was impossible to tell how far the drill had penetrated into the producing horizon.

The holes do not seem to lend themselves readily to the use of the tubing packers for they seem difficult to get in place at the bottom of the well, perhaps on account of the crooked condition of the hole which tends to rotate the packer inside the casing as the tubing is being lowered and in this way wedges it.

Successful Use of Tubing Packer

However, in a well in Ward County a packer was used on a string of 2-inch tubing with very good results and the well flowed from February until August 18, this year, when the tubing was changed to a tapered string from 1¼ to 2 inches in diameter.

This string of tubing was made up as follows:

170 feet of 1¼-inch at bottom
438 feet of 1½-inch next
1,840 feet of 2-inch at top

making a total length of string 2,448 feet in a 2,500-foot hole. This string was open at the lower end and the casinghead was shut in to 200 pounds per square inch pressure.

This method of finishing the well tended to conserve the gas and reduced the gas-oil ratio so that it is felt that the well will ultimately yield more oil than it would do if allowed to flow unrestricted.

Most wells are agitated by the use of a string of three-quarters-inch rods and plunger-type pump and the power is furnished by a gas engine using scrubbed gas free of sulphur compound.

Making Tanks Gas Tight

Since the oil in this field has been placed upon a gravity scale of purchase, a good deal of work has been done to make the lease storage tanks approximately gas tight and it has been found that when done it has raised the gravity of the oil in some cases 2 or 3 points in the scale with a corresponding price increase.

One old practice that has been common to this and other West Texas and Panhandle oil fields has been abandoned since the gravity price scale went into effect, and that was agitating oil in the tank with a flow of gas under pressure for it is now found that the grade of the oil was materially reduced and other means have been put into use to break down the emulsion of oil and water.

It seems to be next in order to devise simple and effective means of plugging these wells as they go to water to such an extent that they can no longer be produced profitably and it now seems that mud-laden fluid will be used to some extent for that work after the bottom of the hole has been filled with cement and lead wool.

This is going to present some interesting problems in the handling of this clay out of which the mud is to be made and some thought is being given already to making this mixture heavier by the use of heavy spar and other materials that will add materially to the specific gravity of the mud.

In the Jal, New Mexico, area north of Winkler County, it is reported that the Texas-Shepard well is producing a considerable portion of mud with the oil, so much in fact, that it is presenting something of a problem to the production men to separate it from the oil and make the required pipe line grade of crude.

When this well was drilling it was found necessary to use about 200 tons of mud to shut off wild gas and it is assumed that it is that mud now working its way back into the well and flowing out with the oil.

Long Distance Clay Hauling

It was not an uncommon occurrence in the Wink Pool to find that mud was being produced with the oil for the first few hours and also that some water, evidently separated out from the rotary mud, accompanied it, for it was noted in the flow tanks or separators that this mud and water would settle out as soon as the velocity of the stream was lowered enough to permit this action to take place.

A good many companies made very comfortable profit out of supplying clay for the purpose of making rotary mud for the wells drilled in the Hendricks Pool, as the surface formation is almost entirely made up of sand and caliche and the clay had to be brought in from some distance, some coming from as far away as El Paso, while other clays were found and mined at Finlay, Tex.

This clay from Finlay, Tex., is interesting in itself in that it is found in a mound that is almost pure clay and when the overburden has been removed it can be steam shoveled at little expense for handling. It has been found by analysis to contain only about 2 per cent sand and is usually mixed into a mud that will weigh about 14 pounds per gallon.

To form this mud several methods are used but some operators recommend the use of hoppers into which steam is discharged from pipes leading to them and this steam which is allowed to carry some water over from the boiler has a tendency to puff up the mud and make the clay stay in suspense in the mixture for a very considerable time. By laboratory test it has been found that only about 4 per cent of the solids in the mud would settle out in 12 hours and when it is remembered that 2 per cent of the mixture is sand that is about 60-mesh size, this seems to be a very good method of preparing this rotary mud.

In one well it was necessary to run 675 tons of this clay in the form of 14-pound mud but the usual amount used in the average well in the Hendricks Pool is about 100 tons. It sells for from $10 to $14 per ton delivered at the well. It is being used quite extensively in the new fields of New Mexico for dirt for mud making purposes is very scarce there also.

The Paint Problem

In traveling through the fields of West Texas the buildings and tanks covered with aluminum paint are very noticeable and it is stated that tests have shown that this paint has better wearing qualities in that climate than any other kind and its power to radiate instead of absorb the heat from the sun's rays has a very decided effect upon the heat in the building or tank.

One of the major companies is conducting a very interesting test in Winkler County and have selected four 55,000-bbl. tanks from their field storage battery and one has been left unpainted as a check tank, while another has been painted with aluminum paint all over, another has red paint over the body of the tank with deck and a ring around the side sheets near the deck of aluminum paint, while the fourth is painted with aluminum all over the shell and the roof of the tank is covered with an aluminum foil.

This aluminum foil is very thin and is prepared in rolls somewhat like ordinary roofing paper, and is applied to the

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"Type WD" is its name. Introduced less than a year ago, it is now actually outselling every other type of arc welder.

It's the simplest, most substantial, and best-looking set built. Liberal use of high-grade materials, fine workmanship, and good design—inherent in all G-E products—are apparent at a glance. It is a self-excited set—that means no separate exciter to look after.

No other arc welder excels it in speed of welding or deposition of metal. Infinitely small gradations of welding current can be obtained simply by turning a handle. It is extremely easy to operate and will give 24-hour service day after day. And we back our reputation against its ability to meet N.E.M.A. and N.E.L.A. ratings—at any time.

A call to your nearest G-E office will bring you complete information.

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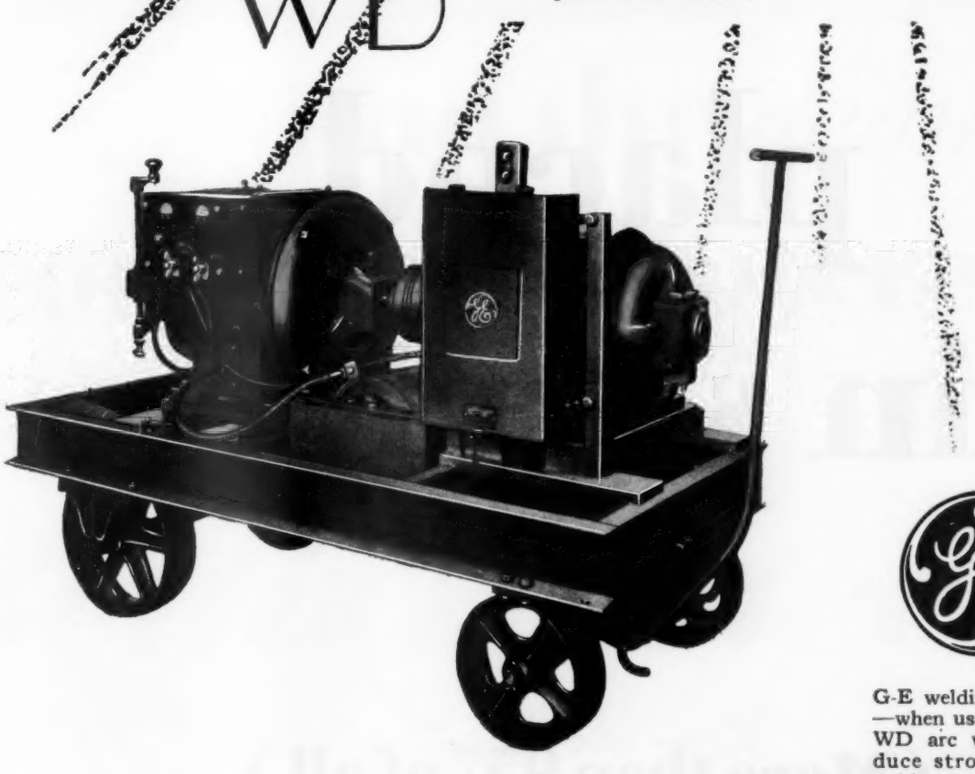

G-E welding electrodes —when used with Type WD arc welders—produce strong, smooth welds at great speed.

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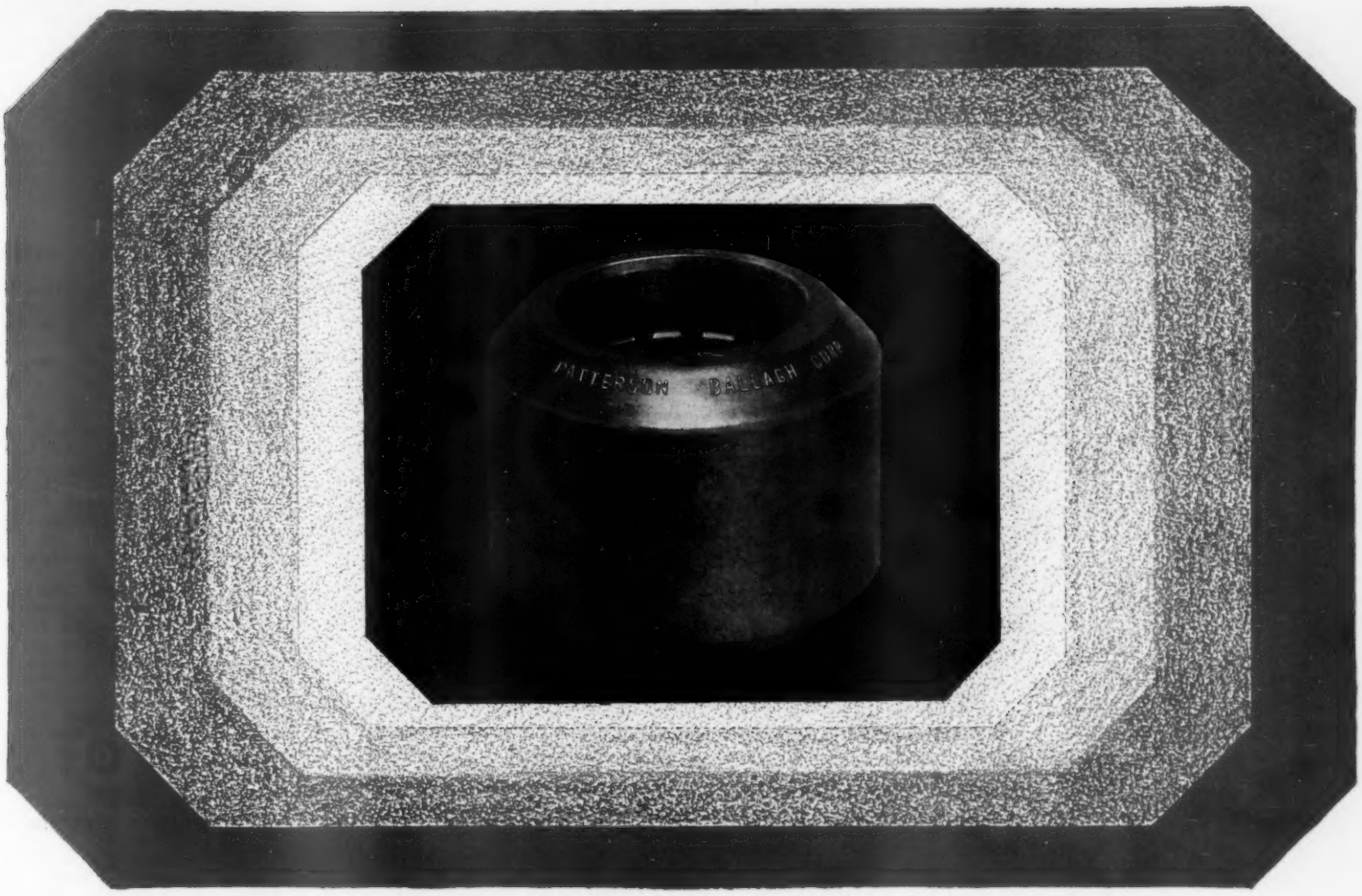

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In the SPOTLIGHT of ENGINEERING APPROVAL

Neilan Balanced Lever Valves are enjoying their ever increasing favor due to merit alone. They are the result of months of persevering research in our up-to-date laboratory.

Improved and perfected, these valves may be had with the Neilan Parabolic Gradual Opening feature. The Parabolic Valve, the greatest forward step in valve making, provides accurately graduated flow control under all volume conditions.

Friction is permanently eliminated by the standard use of ball bearings, and also stainless steel valve stems and certain working parts. For this reason, in the oil and gas industry where sulphur compounds are generally present, Neilan Lever Valves are being enthusiastically acclaimed.

Every valve is now equipped with the new Neilan slipless lever clamp—a clamp that cannot slip, and will not vibrate loose.

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deck of the tank after a coating of adhesive material has been spread over the roof with a brush. The foil is applied and pressed down to exclude air bubbles and when the adhesive material drys it is found that the foil is very firmly held in place.

It was stated that it required two men about one half day to paint a 55,000-bbl. tank with aluminum paint using a spraying outfit and that this saving in time justified the use of the spray gun even though considerable paint was lost due to being blown away by the wind, which seems to blow very steadily in West Texas nearly every month in the year.

Measuring Electric Power

The engineers of the Hendricks Pool are giving considerable time and attention to the weighing of wells and adjustment of counterweights, and it has been found that with the electric motor it is very essential that the counterbalances be very closely adjusted or the peak loads are high and the electric companies use these peak loads as a part of their system of estimating power charges.

It seems that each power company has its own peculiar system of figuring these power costs and some of them are quite complicated and an effort is now being made to standardize and simplify the methods of arriving at these charges.

Where the electric motors are used on pumping wells it has been found that the recording watt meters can be used very nicely for checking counterbalance conditions for surging of the load due to an unbalanced load will be very definitely shown on the chart and it can be corrected by a little study and checking.

The use of electric lights in drilling and pumping rigs is almost universal and it was found in the Hendricks Pool that a good many fires were caused by the breaking of light globes when the wells were flowing hard. To overcome this the engineers for the Atlantic Oil Producing Co. have devised a very simple and unique wiring system that can be quickly and safely strung by the driller and his assistant when they are rigging up, and which is made up in the shop or warehouse to suit any derrick condition.

The whole tendency of the companies in this area seems to be toward increasing the efficiency of the men and lowering the cost of production and meetings are being held under the auspices of the Development and Engineering Division of the American Petroleum Institute at different towns throughout the district. The attendance is very good and some very lively and instructive discussions are had at most of them. Supplementing these most companies hold regular safety and engineering meetings.

So it would seem that while the day of the boom is over for this section there is plenty of work for men who are willing to apply themselves to the problems of these fields and every one is bending his efforts toward producing this oil at a price that will show a reasonable profit for the money expended.

NO DRILLING ON E.P. RANCH

CHATHAM, Ontario, Sept. 14.—Newspaper stories have been widely circulated in regard to oil discoveries on the Prince of Wales' ranch in southern Alberta. One English story was that experts were confident that a strike would be made at a depth of 5,500 feet, giving the prince a yield of probably £5,000,000. Another stated that oil had actually been struck.

Inquiry shows that there has been no drilling whatever on the "E.P." ranch at High River. The nearest wells in the southern foothills are the Western Alberta Oil Co.'s No. 1 Nordon, a half mile distant, and Warner Oils' No. 2 and Imperial Oil's No. 1 Highwood, between 5 and 8 miles distant.

By order of the minister of the interior at Ottawa no petroleum or natural gas rights will be granted on the Prince of Wales ranch. All such rights are being held in reserve until further notice. Prior to the order two applicants filed on a portion of the ranch, but no drilling will be permitted on this acreage unless express permission is secured from the minister of the interior, and no further applications for drilling rights will be accepted.

DIE FROM GAS FUMES

SHREVEPORT, La., Sept. 14.—O. R. McFarland was killed and eight others, including two city firemen, were sent to hospitals by fumes inhaled when McFarland entered one of the towers at the Reserve Natural Gas Co.'s (Arkansas Natural Gas Corp.) plant here. The plant had been shut down for some time, company officials stated, and until McFarland collapsed it was believed the towers were free of gas. An investigation revealed that the gas inlet valve was leaky. The others were overcome as they tried to rescue McFarland.

GULF PORT SHIPMENTS SHOWED 892,419-BARREL DROP IN JULY

HOUSTON, Tex., Sept. 16.—Shipments of crude and refined products from Gulf Coast ports during July totaled 18,339,191.02 bbls., a decrease of 892,419.28 bbls. from figures of the previous month, according to figures just compiled here. The decrease was indicated chiefly in coastwise movements, because the high tanker rates in effect during that month from Gulf ports to north of Hatteras prevented much lifting of fuel oil and gas oil.

Although there was a decline in export demand for refined products during July, a substantial increase in shipments of crude for foreign points resulted in a substantially greater total volume of export trade.

Water shipments by companies and ports were:

Company and port—	Coastwise June	Coastwise July	Export June	Export July
REFINED				
Standard Oil Co. (La.), Baton Rouge	598,777.00	545,874.00	1,033,619.00	729,032.00
The Texas Company, Port Arthur	1,392,189.00	1,379,068.00	636,244.00	525,070.00
Gulf Refining Co., Port Arthur	2,871,557.54	2,281,311.72	100,445.00	72,651.34
Magnolia Petroleum Co., Beaumont*	1,278,320.19	1,495,224.21	.....	.....
Humble O. & R. Co., Baytown	1,672,519.45	1,692,361.00	1,638,898.05	1,810,150.00
Atlantic Oil Prod Co., Atreco	61,346.97	.....	.....	.....
Pure Oil Co., Smiths Bluff	413,744.09	390,053.80	.....	.....
Total	8,288,454.22	7,783,892.73	3,409,206.05	3,136,903.34
CRUDE				
Standard Oil Co. (La.), Baton Rouge	500,973.00	555,684.00	.....	53,208.00
The Texas Company, Port Arthur	.....	.....	.....	.....
Gulf Refining Co., Port Arthur	.....	289,878.77	.....	.....
Magnolia Petroleum Co., Beaumont*	1,333,836.62	885,832.25	.....	.....
Humble O. & R. Co., Texas City	979,432.00	537,169.00	13,910.00	.....
Ingleside	124,672.00	156,133.00	.....	.....
Baytown	78,271.00	355,337.00	.....	.....
Neches	74,557.00	.....	.....	.....
Harbor Island	1,739,165.00	1,089,349.00	401,703.00	818,572.00
Atlantic Oil Prod. Co., Atreco	1,196,388.86	975,454.47	.....	.....
Beaumont	153,633.21	254,919.83	.....	.....
Pure Oil Co., Smiths Bluff	495,337.34	651,192.63	.....	.....
Sun Oil Co., Sabine Pass	442,071.00	795,665.00	.....	.....
Total	7,118,337.03	6,546,614.95	415,613.00	871,780.00
Grand total	15,406,791.25	14,330,507.68	3,824,819.05	4,008,683.34

*Magnolia Petroleum Co. makes no distinction in reports between coastwise and export shipments.

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Protects the Foot

WHETHER you buy shovels, scoops or spades it helps to feel you are buying a line where the smallest details have been worked out scientifically. This means getting maximum life out of the shovel with the greatest possible ease for the human being who must use it. Mo-*lyb*-den-um steel, the Moly-D handle, the famous turned step shown above, *all* help reduce your shovel costs.

THE WOOD SHOVEL AND TOOL CO. · *Piqua, Ohio*
A Shovel for every user—Distributed in every city

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COMPLETE SIMPLIFIED LINES—EASIEST TO BUY

Pipe Welding *in the* New Power Plant

The Bureau of Standards was established by Congress July 1, 1901. It began operations with eight employes. Today the eighteen buildings required to house its activities occupy 43 acres and are manned by a staff of nearly 1000 persons. The bureau aids industry to determine the best standards of quality, performance, and practice. It is everywhere recognized as the national authority.

"Main steam piping in engine room. Attention is directed to the TUBE-TURN, at the extreme left of the picture. The short radius of this fitting made it possible to bring the header thru the wall and to carry it along on brackets closer to the wall than would have been possible with a pipe bend."

Some Other TUBE-TURN *Users*

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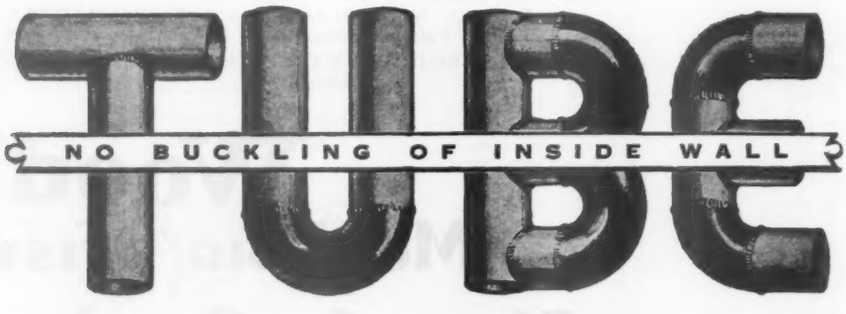
The Prairie Pipe Line Company
Richfield Oil Company
Shell Company
Standard Oil Co. of Indiana
Standard Oil Co. of California
Sun Oil Company
The Texas Company
W. M. Anderson
The Howard C. Baker Company
Johnson, Larsen & Company
Kinzie Engineering Corporation
Cities Service Gas Company
Consolidated Gas, Electric Light and Power Co. of Baltimore
The Detroit Edison Company
The Laclede Gas Light Co.
New Orleans Public Service Inc.
Pacific Gas and Electric Co.
Rochester Gas and Electric Corporation
The Barber Asphalt Company
The Barrett Company
Bogalusa Paper Company
Eastman Kodak Company
Dominguez Chemical Company
Gulf States Paper Corporation
Holly Sugar Corporation
Procter and Gamble Company
Carnegie Steel Company
General Electric Company



with Stock Fittings *for the* Bureau *of* Standards

THE PLANT was first equipped with but one boiler; piping was erected with cast steel fittings and pipe bends. Later it was decided to make the new plant a "central station" for the entire group of 18 buildings, which required the installation of two additional boilers. The drawings specified cast steel fittings in the boiler header piping—but at the last minute a welded installation using Tube-Turns was a adopted.

It will be noted that the only open joints are at the valves or where flange unions were installed to accommodate the testing apparatus. The job was designed to secure proper distribution of expansion and contraction, resulting in a *reduction in the cost of anchor and hanger supports, saving in material cost, and a substantial reduction in pipe covering cost,* since there were practically no flanges to be covered. (Descriptions of illustrations supplied by the contractor.)

"Here limited space prevented making connections with regular fittings. Note particularly how by means of the short-radius Tube-Turn we were able to control direction of the branch piping through provided wall opening."

"A 6-inch branch steam main off-setting at grade and entering pipe tunnel in engine room. It was necessary to closely parallel the side wall in order to provide maximum head room, so important in every engine room. Contrast the appearance of this piping with any installation in which cast fittings are employed."

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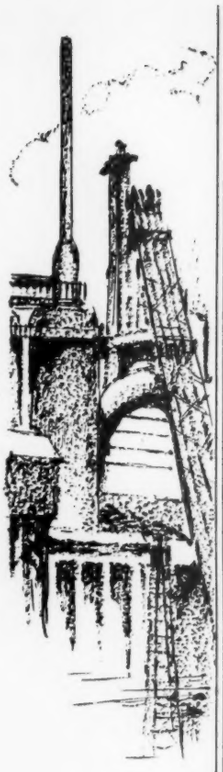
TUBE-TURNS

NO THINNING OF OUTSIDE WALL



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The most modern of blast furnaces and open-hearth furnaces with which our plant is equipped play an important part in the manufacture of Pittsburgh Seamless, yet these alone cannot assure the perfect tube round.

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Pittsburgh Seamless

2907

WILDCAT OPERATIONS IN TEXAS PANHANDLE

(Continued from Page 74)

Phillips Pet. Co.'s No. 1 Garner, 330 ft. N and E, SW cor. SW, Sec. 114, Blk. 4, I.&G.N. Sur. ..... Drlg. 795 ft.

Prairie O. & G. Co.'s No. 2 Nail, 330 ft. from N and W lines N½ E½ SE, Sec. 198, Blk. 3, I.&G.N. Sur. ..... T.D. 2,390 ft., set 8¼-inch csg.

Reynolds et als' No. 2 Cooper, 330 ft. from S and W lines, E½ NW, Sec. 5, Blk. 9, I.&G.N. Sur. ..... Drlg. 550 ft.

Ryan Cons. Oil Co.'s No. 5 Block, 330 ft. N and W, SE cor. NE, Sec. 111, Blk. 4, I.&G.N. Sur. ..... Drlg. 625 ft.

Ryan Cons. Oil Co.'s No. 6 Block, 330 ft. S, 990 ft. E, NW NE, Sec. 111, Blk. 4, I.&G.N. Sur. ..... Rigging up.

Skelly Oil Co.'s No. 18 Schafer, 990 ft. S, 355 ft. W, NE, Sec. 68, Blk. 4, I.&G.N. Sur. ..... Drlg. 2,893 ft; 8,000,000 ft. gas 2,710-40 ft; 10,000,000 gas from 2,835-656 ft.

Skelly Oil Co.'s No. 19 Schafer, 330 ft. N, 990 ft. E, SW cor. NE, Sec. 198, Blk. 3, I.&G.N. Sur. ..... Drlg. 2,980 ft; 6,000,000 ft. gas from 2,895-2,970 ft.

Skelly Oil Co.'s No. 20 Schafer, 330 ft. N, 990 ft. W, SE cor. N½, Sec. 198, Blk. 3, I.&G.N. Sur. ..... T.D. 2,185 ft; U.R. 8¼-inch csg.

Skelly Oil Co.'s No. 21 Schafer, 340 ft. N, 1,540 ft. W, SE cor SE, Sec. 68, Blk. 4, I.&G.N.R.R. Sur. ..... Location.

Stubblefield et als' No. 1 Garner, 330 ft. from S and E lines, SE, Sec. 104, Blk. 4 ..... Fishing 8¼-in. csg; T.D. 2,380 ft.

CASTRO COUNTY

Colorado O & R. Co.'s No. 1 M. Slemmons, SW cor., Sec. 73, Blk. M-17, B.S.&F. Sur. ..... Rig blown down.

Mystery Oil Co.'s No. 1 J. I. Crum, SE cor. NE, Sec. 333, Blk. M-6, S.K.&K. Sur. ..... S.D. 510 ft. for csg.

CHILDRESS COUNTY

C. L. Sloane et als' No. 1 B. P. Smith, Sur. 49, F. P. Knott lands ..... S.D. 4,486 ft.

COCHRAN COUNTY

Continental Oil Co.'s No. 1 Slaughter-A, 330 ft. from W, 430 ft. from S lines, League 130, Carson County School land ..... Small show gas 4,745-50 ft; 3,000 ft. oil in hole 4,883 ft; drlg. 4,955 ft; 3,000 ft. fluid in hole. 4,003 ft; 90% sul. water; oil pay, 4,873-88 ft.

COTTLE COUNTY

Explin. Co.'s No. 1 Richards ..... 1,000,000 ft. gas 3,720-30 ft; C.O. 4,003 ft.

Explin. Co.'s No. 3 Matador Land & Cattle Co., C, Sec. 46, J. H. Stephens Sur. .. .. Drlg. 3,980 ft.

Sun Oil Co.'s No. 1 T. B. Yarborough, 485 ft. S, 2,460 ft. E, NW cor., Sec. 551, Blk. H, W.&N.W. Sur. ..... Fishing 4,540 ft.

DONLEY COUNTY

Blue Bonnett Oil Co.'s No. 1 Ball, 1,075 ft. from N line, 985 ft. from E line, Sec. 22, Blk. E, D.&P.R.R. Sur... T.D. 2,900 ft.

Marine Oil Co.'s No. 1 Sawyer, C SW, Sec. 5, Blk. G, G.C.&S.F. Sur. ..... S.D. 3,510 ft.

Southland Oil Co.'s No. 1 Lewis, C SE 40 ac., Sec. 3, Blk. 29, H.&G.N.R.R. Sur. ..... Drlg. 995 ft.

GRAY COUNTY

British-American Oil Co.'s No. 2 Purviance, 330 ft. N and E, SW cor. E 160 ac., Sec. 61, Blk. B-2, H.&G. N.R.R. Sur. ..... Location.

Champlin Ref. and Danciger's No. 2 Cook-Faulkner, 860 ft. N, 330 ft. E, SW cor. W 120 ac. of E 200 ac., Sec. 30, Blk. B-2, H.&G.N.R.R. Sur. ..... T.D. 2,875 ft; 1,500 ft. oil in hole 2,855-57 ft; fishing liner.

Champlin Ref. and Danciger's No. 3 Cook-Faulkner, 330 ft. S and E, NW cor. W 120 ac. of E 200 ac., Sec. 30, Blk. B-2, H.&G.N.R.R. Sur. ..... Location.

Champlin Ref. Co.'s No. 2 Jackson, 330 ft. each way from SE cor., W 100 ac., Sec. 60, Blk. B-2, H.&G.N. Sprayed 5 bbls; T.P. 2,920 ft; drlg. 3,660 ft.

Champlin Ref. Co.'s No. 3 McLaughlin, 990 ft. from S and E lines, E½, Sec. 33, Blk. B-2 ..... T.D. 2,770 ft; cem; 8¼-inch csg.

Crabtree Drlg. Co.'s No. 1 B. F. Talley, SW NE, Sec. 114, Blk. M-2, B.S.&F. Sur. ..... S.D. 2,740 ft.

Danciger O. & R. Co.'s No. 1 Arnold, 330 ft. N and E, SW cor. SE, Sec. 149, Blk. 3, I.&G.N. Sur. ..... Drlg. 725 ft.

Danciger O. & R. Co.'s No. 3 Beck, 330 ft. S, 990 ft. E, NW, Sec. 28, Blk. B-2, H.&G.N.R.R. Sur. ..... T.D. 2,881 ft. flowed 1,080 bbls. in 24 hrs; pay 2,861-81 ft.

Danciger O. & R. Co.'s No. 4 Beck, 330 ft. S and W, NE cor., Sec. 28, Blk. B-2, H.&G.N. Sur. ..... S.G. 2,420-85 ft.; drlg. 3,747 ft.

Danciger O. & R. Co.'s No. 5 Beck, 330 ft. S and E, NW cor. SW, Sec. 28, Blk. B-2, H.&G.N. Sur. ..... Standardizing 2,712 ft.

Danciger O. & R. Co.'s No. 6 Beck, 330 ft. S, 990 ft. W, NE cor., Sec. 28, Blk. B-2, H.&G.N. Sur. ..... Drlg. 2,046 ft.

Danciger O. & R. Co.'s No. 7 Beck, 330 ft. S, 1,650 ft. W, NE cor., Sec. 28, Blk. B-2, H.&G.N. Sur. ..... Drlg. 2,290 ft.

Danciger et als' No. 11 Jackson, 330 ft. S, 1,320 ft. W, NE cor. NW, Sec. 88, Blk. B-2, H.&G.N. Sur. ..... T.D. 2,906 ft; set 8¼-in. csg.

Danciger O. & R. Co.'s No. 1 McLarty, 1,220 ft. from S, 330 ft. from W, W½ NW, Sec. 10, Blk. 1, A.C.H. &B. Sur. ..... Drlg. 1,550 ft.

Danciger O. & R. Co.'s No. 1 Shaw, 330 ft. from S, 286 ft. from E of E 39½ ac. NW, Sec. 5, Blk. 1, A.C. H.&B. Sur. ..... Drlg. 1,628 ft.

Danciger O. & R. Co.'s No. 1 Williams, 330 ft. from N, 330 ft. from E, S½ NW ..... Estimated 15,000,000 ft. gas 2,610-70 ft; S.D. 2,720 ft.

Delaney and Associates Oil Co.'s No. 8 Jackson, 990 ft. S, 330 ft. E, NW cor. E½ SW, Sec. 88, Blk. B-2, H.&G.N.R.R. Sur. ..... 4,000,000 ft. gas 2,470-90 ft. and 2,530 ft; drlg 2,884 ft; 5,000,000 ft. gas, 2,883-84 ft.

Dye & Gillette's No. 2 J. L. Noel, 330 ft. N and E, SW cor. NE, Sec. 187, Blk. 3, I.&G.N. Sur. ..... S.D. 2,865 ft.

Sines & Reiger's (formerly Eslick et als') No. 1 Mrs. J. A. Hopkins, NW cor. W 80 ac. of SW, Sec. 54, Blk. B-2, H.&T.C. Sur. ..... S.D. 3,206 ft.

Gardner Bros. and Collins' No. 2 Saunders, 955 ft. from S, 330 ft. from E of W 68 ac. E½, J. G. Eustice Sur... Location.

Gulf Prod. Co.'s No. 2 Worley-A, 330 ft. N, 990 ft. W, SE SW, Sec. 36, Blk. 3, I.&G.N. Sur. ..... Fishing 2,661 ft.

Gulf Prod. Co.'s No. 3 Worley-A, 330 ft. N, 1,650 ft. W, SE SW, Sec. 36, Blk. 3, I.&G.N.R.R. Sur ..... Drlg. 2,482 ft.

Guernsey Oil Co.'s No. 1 Pope, 330 ft. from N and W lines, W½ SW, Sec. 173, Blk. 3, I.&G.N. Sur. ..... S.D. 805 ft.

Herragan Oil Co.'s No. 1 Bradford, 330 ft. from N, 990 ft. from E, Sec. 123, Blk. B-2 ..... Drlg. 2,010 ft.

Hinerman Bros. No. 1-A Taylor, 330 ft. from NE of E½ of NE¼ Sur, 8, Blk. H.A.H. Wallace Sur..... Location.

Humble O. & R. Co.'s No. 3 Jackson, 230 ft. from E line, 330 ft. from N line of E 110.5 ac., Sec. 90, Blk. B-2, H.&G.N.R.R. Sur. ..... Drlg. 2,206 ft.

Humble O. & R. Co.'s No. 4 Jackson, 976 ft. N, 330 ft. E, SW cor. E 95.25 ac., Sec. 90, Blk. B-2, H.&G.N. Sur. Drlg. 1,998 ft.

Humble O. & R. Co.'s No. 1 Palmer, 330 ft. from N and E lines, of W 100 ac., Sec. 31, Blk. B-2, H.& G.N. Sur. ..... S.D. 2,797 ft; S. G. 2,697 ft.

Independent O. & G. Co.'s No. 1 Hollenbeck, 990 ft. each way from NE cor. NE, Sec. 176, Blk. 3, I.&G. N.R.R. Sur. ..... 5,000,000 ft. gas from 2,428-82 ft; fishing 3,470 ft.

Magnolia Pet. Co.'s No. 1 Wright, 330 ft. S and W lines, S½ SW, Sec. 13, Blk. 3, I.&G.N. Sur. ..... S.D. 2,707 ft.

Magnolia Pet. Co.'s No. 2 Wright, 820 ft. from W, 330 ft. from S of S½ SW, Sec. 13, Blk. 3, I.&G.N. Sur. .. Drlg. 1,510 ft.

McLain Oil Co.'s No. 1 Back, 1,000 ft. from W line, 330 ft. from N line, NW, Sec. 24, Blk. 25, H.&G.N. Sur. .. 1,000,000 ft. gas 2,105-10 ft. and estimated 3,000,000 ft. gas 2,202-08 ft; S.O. 2,565-90 ft. and 2,-714 ft; shot 100 qts. 2,565-2,839 ft; spraying 6 bbls. oil per day; S.D. 2,846 ft; C.O.

McMan O. & G. Co.'s No. 3 Jackson, 974 ft. N, 330 ft. W, SE cor. W 95.25 ac. of E 190.5 ac., Sec. 90, Blk. B-2, H.&G.N. Sur. ..... Drlg. 1,627 ft.

McMan O & G. Co.'s No. 4 Jackson, 970 ft. N, 330 ft. E, SW cor. W 95.25 ac. of E 190.5 ac., Sec. 90, Blk. B-2, H.&G.N. Sur. ..... Spudding.

McMan O. & G. Co.'s No. 5 Palmer, 330 ft. S, 930 ft. W, NE cor., E 100 ac. of W 200 ac., Sec. 31, Blk. B-2, H.&G.N. Sur. ..... T.D. 2,885 ft; 250 ft oil in hole; pay 2,875-85 ft; 2,000,000 ft. gas.

McMan O. & G. Co.'s No. 6 Palmer, 330 ft. S and E of NW E 100 ac. of W 200 ac., Sec. 31, Blk. B-2, H.&G.N. Sur. ..... T.D. 2,762 ft.

McMan O. & G. Co.'s No. 3 Saunders, 1,650 ft. N, 330 ft. E. SW cor., E 80 ac. of W 148 ac. of E 296 ac. of J. G. Eustis Sur. ..... Drlg. 2,538 ft.

Mordyan O. & G. Co.'s No. 2 Davis, 330 ft. from N, 990 ft. from E, S½ NW, Sec. 8, Blk. 1 ..... S.D. 2,320 ft.

Oil Operators' No. 1 Bowers, 330 ft. from N, 330 ft. E, Sec. 93, Blk. B-2, H.&G.N. Sur. ..... Show oil and gas 2,400-17 ft; drlg. 2,794 ft; first gas 2,483 ft; increased at 2,500 ft., 2,544 ft and 2,950 ft; T.D. 2,865 ft; standardizing.

Operators Oil Co.'s No. 1 Lovett, 330 ft. from N and W line, W½ NE, Sec. 57, Blk. B-2, H.&G.N. Sur. ..... G. 2,390 ft; standardizing 2,793 ft.

Operators Oil Co.'s No. 5 Cook-Faulkner, 990 ft. N, 330 ft. W, SE of W 90 ac., Sec. 30, Blk. B-2, H.&G.N. Sur. S.D. 2,748 ft; standardizing.

Operators Oil Co.'s No. 6 Cook-Faulkner, 330 ft. S and E, NW cor., Sec. 30, Blk. B-2, H.&G.N.R.R. Sur. .... S.G. 2,424 ft; and 2,477 ft; S.D. 2,750 ft.

Operators Oil Co.'s No. 7 Cook-Faulkner, 330 ft. S, 820 ft. E, NW cor., Sec. 30, Blk. B-2, H.&G.N. Sur. ..... Drlg. 2,483 ft; S. G. 2,380 ft.

Operators Oil Co.'s No. 8 Cook-Faulkner, 330 ft. S, 1,310 ft. E, NW cor., Sec. 30, Blk. B-2, H.&G.N.R.R. Sur... Drlg. 2,323 ft.

Osborn et als' No. 1 Morse, 330 ft. N and E, SW cor. S½ NE, Sec. 1, Blk. 26, H.&G.N.R.R. Sur. ..... Drlg. 2,585 ft; S. O. 2,572 ft.

Panhandle Ref. Co.'s No. 3 Saunders, 330 ft. N and E, SW cor. E½ NE, Sec. 3, Blk. 1, A.C.H.&B. Sur. ..... Drlg. 1,700 ft.

Phillips Pet. Co.'s No. 1 Eakin, 330 ft. from S. 330 ft. from W, Sec. 56, Blk. 25, H.&G.N.R.R. Sur. ..... S.O. 2,245-55 ft. T.D. 2,695 ft; 1,000,000 ft. gas 2,170-2,255 ft.

Phillips Pet. Co.'s No. 1 Jackson, 330 ft. each way from NE cor. NE, Sec. 5s, Blk. B-2, H.&G.N.R.R. Sur. .... S.O. 2,712-22 ft; 250 ft. oil in hole; set 5-in. csg. 3,018 ft; 7,000,000 ft. gas 3,130 ft; 1,000,000 ft. gas 3,144 ft; T.D. 3,260 ft; P.B. 3,-060 ft; fishing.

Phillips Pet. Co.'s No. 6 Jackson, 330 ft. from N, 990 ft. from E line, S½ NE, Sec. 88, Blk. B-2, H.&G.N. R.R. Sur ..... Drlg. 1,930 ft.

Phillips Pet. Co.'s No. 6 Palmer, 330 ft S and W, NE cor., Sec. 31, Blk. 2, H.&G.N.R.R. Sur. ..... Drlg. 2,660 ft.

Phillips Pet. Co.'s No. 7 Palmer, 990 ft. N, 330 ft. E, SW cor. E. 183.1 ac., Sec. 31, Blk. B-2, H.&G.N. Sur. T.D. 2,887 ft; first pay 2,845-60 second pay 2,880-87 ft; C-O.

Plains Drlg. Co.'s No. 1-A Chapman, 330 ft. from S and W, NE. Sec. 10, Blk. 26, H.&G.N. Sur. ..... Spudding.

Prairie O. & G. Co.'s No. 1 Langham, 330 ft. N and E, SW, Sec. 1, Blk. B-2, H.&G.N.R.R. Sur. ..... S.D. 2,730 ft; 60,000,000 ft. gas.

Quillian et als' No. 1 Barrett, 330 ft. from N, 330 ft. from F. Sec. 131, Blk 3, H.&G.N. Sur. ..... S.D. 1,830 ft.

Ray & Massie's No. 5 Chapman, 330 ft. S and W, NE SE SW, Sec. 51, Blk. 25, H.&G.N.R.R. Sur. ..... Drlg. 900 ft.

Ray et al No. 1 Noble, 240 ft. from S. and 330 ft. from W. line of W. 80 ac. of SW¼ Sur. 10, Blk. A-6, H.&G.N. ..... Location.

Shamrock Oil Co.'s No. 1 Clayton, 150 ft. from NE cor. of S 80 ac. of W 140 ac. of E 277 ac., Sec. 50, Blk. 25, H.&G.N. Sur. ..... 1,000,000 ft. gas 2,713-31 ft; S.O. 2,739 ft; C-O 2,928 ft.

Sherwood et als' No. 1 Gething, 330 ft. N and W, SE cor. N½ NE, Sec. 14, Blk. A-9, H.&G.N. Sur. ..... S.O. 2,709-33 ft; T.D. 2,819 ft; shot 200 qts. 2,718-2-819 ft; 200 ft. oil in hole.

Skelly Oil Co.'s No. 5 Jackson, 970 ft. N, 330 ft. W of SE cor. W. 190 ac. of Sec. 90, Blk. B-2, H.&G.N. Sur. ..... Location.

St. Clair Oil Co.'s No. 1 Dial, 330 ft. S and W, NE cor. SE, Sec. 10, Blk. 25, H.&G.N.R.R. Sur. ..... Cellar.

St. Clair Oil Co.'s No. 1 Rowe, Sec. 32, Blk. R ..... S.D. 3,490 ft; hole full wtr

St. Clair Oil Co.'s No. 1 L. S. Stockton, SE cor., Sec. 35, W. R. Lee Sur. ..... Spudded and S.D.

Stogner Meaders No. 1 Taylor, 330 from S. and E. of SW¼, Sur. 7, Blk. H. A. H. Wallace ..... Location.

Sun Oil Co.'s No. 4 Purviance, 330 ft. S and E, NW cor., Sec. 61, Blk. B-2, H.&G.N.R.R. Sur. ..... Spudding.

The Texas Corp.'s No. 3 Bruce Bull, 330 ft. from N, 330 ft. from W, Sec. 2, Blk. B-2 ..... 8,000,000 ft. gas 2,340-50 ft; S.D 2,675 ft.

The Texas Co.'s No. 3-B Chapman, 330 ft. S and E, NW cor. SE, Sec. 69, Blk. 25, H.&G.N.R.R. Sur. ..... Location.

The Texas Co.'s No. 2 Comb-Worley, 330 ft. N. 2,310 ft. W, SE cor. S½, S line, Sec. 36, Blk. 3, I.&G.N. Sur... 5,000,000 ft. gas 2,835-50 ft. and 70,000,000 ft. gas 2,884 ft; T.D. 2,935 ft, to deepen; flowing 350 bbl. per day; top pay 2,915 ft.

The Texas Co.'s No. 2 Comb-Worley, 330 ft. N and W SE cor., Sec. 36, Blk. 3, I.&G.N. Sur. ..... S.D. 2,710 ft.

The Texas Corp.'s No. 4 Cook-Faulkner, 1,973 ft. from W line, 330 ft. from N line of W 160 ac., Sec. 29, Blk. B-2, H.&G.N. Sur. ..... T.D. 2,835 ft; drlg. by tools.

The Texas Co.'s No. 7 Cook-Faulkner, 330 ft. N and W, SE cor. W 200 ac., Sec. 29, Blk. B-2, H &G.N. Sur. .. Drlg. 1,660 ft.

P. A. Thorpe's No. 1 Finley, 3,416 ft. from S, 330 ft. from W, of B. F. Chaney Sur. ..... Drlg. 2,949 ft; S.O. 2,890 ft. increase at 2,949 ft.

Wilcox-Pampa Oil Co.'s No. 9 Combs-Worley, 330 ft. S and E, NW cor. NE SW, Sec. 35, Blk. 3, I.&G.N. R.R. Sur. ..... Estimated 15,000,000 ft. gas 2,575-2,625 ft; drlg. 2,892 ft; spraying 30 bbls. daily.

White Eagle O. & R. Co.'s No. 1 Faulkner, 330 ft each way from SE cor., E 60 ac., Sec. 29, Blk. B-2, H. &G.N. Sur. ..... S D. 2 735 ft; 50,000,000 ft. gas 2,-717-35 ft.

White Eagle O. & R. Co. et als' No. 2 Faulkner, 330 ft. from S and W, E 60 ac., Sec. 29, Blk. B-2 ..... Standardizing 2,476 ft.

Wright Wilson, trustee's No. 1 Chapman, 175 ft. from S and E line, N½ NW, Sec. 69, Blk. 25, H.&G.N. Sur. Rigging up.

HOCKLEY COUNTY

World Oil Co.'s No. 1 Ellwood, 320 ft. from N and W lines, League 7, Wilbarger County School lands; elevation 3,362 ft; contract depth 5,000 ft. .. .. S.D. 3,250 ft.

HUTCHINSON COUNTY

Adamcas Oil Co.'s No. 4 Sanford, 310 ft. S, 320 ft. W, NE cor of N 160 ac. of 9 240 ac., Sec. 85, Blk. 46, H.&T.C. Sur. ..... U.R. 8¼ in csg; T.D. 2,480 ft.

Continental Oil Co.'s No. 1-B Johnson, 330 ft. S and W, NE cor. NW, Sec. 6, Blk. 1, B.&B. Sur. ..... T.D. 1,975 ft; set 10-in. csg.

Devore Oil Co.'s No. 1 Johnson Bros., 330 ft. from S and E line, NW SW, Sec. 28, Blk. Y, A.&B. Sur. ..... Drlg. 2,110 ft.
Holmes et als' No. 1 Moore-A, 330 ft. N and E, SW cor. S½ NE, Sec. 125, Blk. 4, I.&G.N. Sur. ..... Rig.
Huey et als' No. 3 Smith et al, 330 ft. from N, 660 ft. from W, S 40 ac. of E 100 ac., SE, Sec. 12, Blk. Y .. S.D. 500 ft.
McMan O. & G. Co.'s No. 2 Sanford, 300 ft. from W line, 315 ft. from S line, N 274 ac., Sec. 83, Blk. 46, H. &T.C. Sur. ..... T.D. 3,153 ft; T.P. 3,025-30 ft; to shoot; C.O. 3,153 ft.

Midwest Explin. Co.'s No. 1 Garner et al, 330 ft. N and W, SE cor. NE, Sec. 124, Blk. 4, I.&G.N. Sur. ..... Spudding, 100 ft.
Midwest Explin. Co.'s No. 2 Garner et al, 330 ft. N, 1,650 ft. W. SE cor. NE, Sec. 124, Blk. 4, I.&G.N. Sur. .. Rig.
Midwest Explin. Co.'s No. 2 Moore, 330 ft. from S, 1,320 ft. from W, Sec. 125, Blk. 4, H.&G.N. Sur. ..... Drlg. by tools 2,965 ft.
O. B. Penney's No. 2 Johnson Bros., 330 f.. from S line, 330 ft. from W line, W½ NE, Sec. 35, Blk. Y, A. &B. Sur. ..... 31,000,000 ft. gas 1,990 ft; drlg. 2,710 ft.

Pennowa Oil Co.'s No. 3 Smith, 330 ft. S and W, NE NW, Sec. 7, Blk. Y, N.&C. Sur. ..... Drlg. 2,815 ft.
Phillips Pet. Co.'s No. 1 Cheatham, 427 ft. N, 330 ft. W, SE cor. SE SE, Sec. 38, Blk. Y ..... T.D. 3,040 ft; flowed 1,020 bbls. first 13 hrs; T.P. 3,032-40 ft.

Phillips Pet. Co.'s No. 1 Johnson Bros., 330 ft. from N and W lines, NW, Sec. 34, Blk. Y, A.&B. Sur. ..... Pay 2,951-72 ft; initial prod. 30 bbls. oil and 5,000,000 ft. gas; drlg. 3,060 ft.

Phillips Pet. Co.'s No. 1 Johnson-Kotz, 350 ft. N, 330 ft. E. SW W½ SW, Sec. 35, Blk. Y ..... Drlg. 2,870 ft.
Phillips Pet. Co.'s No. 6 (Florence), 330 ft. each way from S and W lines. E½ ..... T.D. 2,876 ft; T.P. 2,805 ft; I.P. 70 bbls; shot 54 qts. 2,788-2,828 ft; fishing cag.

Prairie O. & G. Co.'s No. 4 Cal Merchant, 5,612 ft. S, 330 ft. E, NW, Sec. 37, Blk. 47, H.&T.C.R.R. Sur. ... Drlg. 1,870 ft.
Prairie O. & G. Co.'s No. 4 Shaw, 330 f.. S, 990 ft. W, NE cor., Sec. 27, Blk. Y ..... S.D. 2,753 ft.
Reliance O. & G. Co.'s No. 2 Sanford, 330 ft. S and E, NW W½ of N 80 ac. of S 320 ac., Sec. 83, Blk. 46, H.&T.C. Sur. ..... Spudding.
Skelly Oil Co.'s No. 2 Lee Bivins, 306 ft. from E, 1,242 ft. from S line, S 160 ac. of N 320 ac., Sec. 84, Blk. 46, H &T.C.R.R. Sur. ..... T.D. 1,035 ft; fishing pipe.
Skelly Oil Co.'s No. 8 Whittenburg, 330 ft. from S, 2,230 ft. from W, Sec. 22, Jameson Sur. ..... T.D. 2,954 ft; shot 20 qts. 2,915-45 ft. C-O.

Sunny Jim Oil Co.'s No. 3 Pitts, 330 ft. N and W, of most southerly SE cor., Sec. 9, Blk. M-21, T.C. Sur. .. Location.
Travelers Oil Co.'s No. 2 Cockrell, 350 ft. from E and S line, Sec. 8, Blk. B-3, D.&S.E. Sur. ..... Drlg. 2,770 ft; 1,000,000 ft. gas from 2,610-2,770 ft.

KING COUNTY

Huff Oil Co.'s No. 1 Martin, 1,320 ft. from N line, 1,320 ft. from E line, Sec. 171, Blk. F, H.&T.C. Sur. ..... Rig.

LAMB COUNTY

Graham O. & G. Co. et als' No. 1 Ellwood, CWL, Sec. 9, Blk. T, T. A. Thompson Sur. ..... Fishing bailer, 2,995 ft.

LIPSCOMB COUNTY

Brown et als' No. 1 Box T Ranch, SW NE, Sec. 612, H.&T.C Sur. ..... S.D. 3,305 ft.
Okla. Public Service Co.'s No. 1 C. W. Jones, NE SW, Sec. 100, H.&T.C. Sur. ..... S.D. 4,627 ft.

LUBBOCK COUNTY

Center Oil Co.'s No. 1 Bowles Ranch ..... Small S.O. 1,133-40 ft; sand; S.D. 4,167 ft.

MOORE COUNTY

Amarillo Oil Co.'s No. 1 Read-A, C NW, Sec. 14, Blk. 13-12. D.&P. Sur. ..... Drlg. 1,985 ft.
Amarillo Oil Co.'s No. 1 Perkins-A, 330 ft. each way out of NW cor. NE, Sec. 76, Blk. 3 ..... Drlg. 2,105 ft.

Red River Gas Co.'s No. 1 J. M. Shelton, 330 ft. each way from SE cor., Sec. 52, Blk. 3, G.&M. Sur. ..... Rig.
Dana O. & G. Co.'s No. 1 Anthony, C NW, Sec. 260, Blk. 44, H.&T.C.R.R. Sur. ..... Fishing 2,308 ft.
Fritch O. & G. Co.'s No. 1 Lee Bivins, C NE 40 ac. of N 160 ac., Sec. 4, Geo. Mahan Sur. ..... 2,000,000 ft. gas 1,550-65 ft; S.D. 2,180 ft.

Phillips' No. 1 Wilson, 330 ft. each way out of NW cor. S½ SE, Sec. 157, Blk. 3-T ..... 5,000,000 ft. gas 2,773-2,918 ft; 34,000,000 ft. gas 3,143-80 ft; T.D. 3,328 ft; fishing; 300 ft. fluid in hole.

MOTLEY COUNTY

Explin. Co.'s No. 5 Matador, C, Sec. 45, Blk. J-B, C. B.&C.N.G.R.R. Sur. ..... U.R. 10-inch csg. at 650 ft.
Explin. Co.'s No. 6 Matador, 330 ft. from N line, 330 ft. from E line, Sec. 132, Blk. M ..... Drlg. 1,275 ft.
Matador Oil Corp.'s No. 1 Owen, C NE, Sec. 10, Blk. G, B.&B. Sur. ..... S.D. 580 ft.

POTTER COUNTY

Canadian River Gas Co.'s No. 1 Allison "A," 386 ft. from E line, 5,439 ft. from S line, Sec. 1, W. T. Palmer Sur. .. Cellar.

RANDALL COUNTY

W. A. Patterson's No. 1 Palo Duro, Sec. 60, Blk. K-14 .... S.D. 1,250 ft.

ROBERTS COUNTY

Big Bend Oil Co.'s No. 1 Ledrick, Sec. 7, Blk. 5-A ..... T.D. 5,992 ft; will P.B. and shoot; S.O. 5,288-91 ft; C.O.

WHEELER COUNTY

A. R. Anderson et als' No. 1 Cuddleback, C SE NW, Sec. 18, Blk. Z-4, H.&G.N. Sur. ..... Drlg. 700 ft.
Angus et als' No. 1 Linkey, C NE NW, Sec. 126, Blk. 23. T.D. 2,000 ft.
Byrens et als' No. 1 Johnson, SW cor. NE, Sec. 88, Blk. A-5, H.&G.N. Sur. ..... S.D. 2,920 ft.
Johnson et als' No. 1 Hicks, C NW SW, Sec. 49, Blk. 17, H.&G.N.R.R. Sur. ..... 6,000,000 ft. gas 1,782-90 ft; drlg. 1,830 ft; 30,000,000 ft. gas 1,782-1,830 ft.

Kosmos Carbon Co.'s No. 1 Hick, C NW NW, Sec. 52, Blk. 17, H.&G.N.R.R. Sur. ..... C-O. 1,770 ft.
Lela O. & G. Co.'s No. 1 Williams & Laycock, 330 ft. from S, 209 ft. from W, W½ NW, Sec. 20, Blk. A-8, H.&G.N. Sur. ..... Rig going up.
Lone Star Gas Co.'s No. 3 Burcham, C NE SE, Sec. 91, Blk. 17, H.&G.N. Sur. ..... Drlg. 1,905 ft.
Martin & Debous' No. 2 Close, C NE NW, Sec. 83, Blk. 23, H.&G.N. Sur. ..... Drlg. 1,010 f..
Murchison & Fain's No. 1 Close, C NE NE, Sec. 82, Blk. 23, H.&G.N. Sur. ..... Drlg. 1,550 ft.
Magnolia Pet. Co.'s No. 1 Laycock, 652 ft. from W, 660 ft. from N. SE, Sec. 9, Blk. 27, H.&G.N.R.R. Sur. .... Drlg. 1,970 ft; S.G. 1,902-07 ft.
Shell Pet. Corp.'s No. 1 Ackley, C SW SE, Sec. 20, Blk. 24, H.&G.N. Sur. ..... Cellar.
Osage Dev. Co.'s No. 1 Purcell, C SE NE, Sec. 51, Blk. 17, H.&G.N. Sur. ..... Drlg. 1,795 ft.
The Texas Co.'s No. 2 Sewell, 660 ft. S and W, NE cor. NW, Sec. 1, Blk. 24, H.&G.N. Sur. ..... Drlg. 1,750 ft.
Upham Gas Co.'s No. 1 Shelton, C SE NE, Sec. 22, Blk. 24, H.&G.N.R.R. Sur. ..... S.D. 1,775 ft.
Vaughn et als' No. 3 Ackley, 330 ft. from N, 330 ft. from W, Sec. 4, Blk. 27, H.&G.N. Sur. ..... 5,000,000 ft. gas 1,660-1,770 ft; drlg. 1,840 ft.

Vaughan et als' No. 4 Ackley, 330 ft. N and E, SW cor. NW, Sec. 27, H.&G.N.R.R. Sur. ..... Drlg. 1,958 ft; 18,000,000 ft. gas.
Vaughn et als' No. 5 Ackley, 330 ft. S and E, NW cor. NW NW, Sec. 4, Blk. 27, H.&G.N.R.R. Sur. ..... Drlg. 1,213 ft.
Wischkamper et als' No. 1 Curry, C NE SE, Sec. 53, Blk. 23, H.&G.N. Sur. ..... Spudding.

WILDCAT OPERATIONS IN WEST TEXAS

(Continued from Page 73)

Gulf Prod. Co.'s No. 68 McElroy, 771 ft. S of NE cor. on E line of their lease in Sec. 200, Blk. F, C.C. S.D.&R.G.N.G. ..... Drlg. 1,250 ft., anhydrite; top salt 1,175 ft.; cem. 8¼-in. casing 1,205 ft.
Gulf Prod. Co.'s No. 8 Waddell, 330 ft. N and W of SE cor., Sec. 2, Blk. B-24, School Land ..... Drlg. 1,435 ft., anhydrite; top salt 1,328 ft.
Simms-Atlantic's No. 10-A University, 2,310 ft. S and E, Sec. 39, Blk. 30, University ..... Drlg. 2,550 ft.; top salt 1,070 ft.
Simms-Atlantic's No. 2-F University, Sec. 45, Blk. 30, 2,310 ft. from N, 330 ft. from E, University ..... Location.
Tidal Oil Co.'s No. 10 University, 859 ft. from W and 1,255 ft. from S line of SE, Sec. 47, Blk. 30, University Land ..... Drlg. 250 ft.
T. P. Coal & Oil Co.'s No. 2 University, 2,310 ft. from S, 1,650 ft. from W, Sec. 34, Blk 20, University Land.. Rigging up.
Church-Weekley's No .3 Dowell-University, 990 ft. from S and W, Sec. 39, Blk. 30 ..... 1,500 ft. oil in hole; top pay 3,890 ft.; fishing 3,025 ft.

CROCKETT COUNTY

California Co.'s No. 3 Powell, Lease No. 1, 1,056 ft. N and 495 ft. E of SW cor., Sec. 62, Blk. BB, G.C. &S.F. ..... Drlg. 500 ft.
Eppenaur et al's No. 2 Noelke, 500 ft. N and 1,250 ft. E of SE cor., Sec. 64, Blk. 1, I.&G.N.R.R. Sur. ..... Top salt 720 ft.; underreaming 1,125 ft.

Lewis & Daniels' No. 1 Pecos River Bed, 19 yards S and 37 degrees E of NW cor., Sec. 33, Blk. 1, I.&G.N. Sur.. Shut down 1,135 ft.
W. W. Donnelly & Young's No. 1 Shannon, SW SW SE, Sec. 42, Blk. BB, T.C.R.R. Sur. ..... Total depth 2,556 ft.; swabbed 455 bbls.; shut down.

W. W. Donnelly & Young's No. 1 Middlebuster, C Sec. 11, Blk. 9, D.&S.E. Sur. ..... 7,000,000 ft. gas at 1,663 ft.; shut down 1,755 ft.

Moncrief's No. 3 Todd, 330 ft. from S and E, Sec. 29, Blk. VV ..... Drlg. 450 ft.
Taylor-Link's No. 3 Powell, 1,000 ft. S of No. 2, Sec. 52, Blk. BB, E.L.&R.R. Sur. ..... Fishing 2,317 ft.

CULBERSON COUNTY

Deep Rock Oil Co.'s No. 3 Kloh, 360 ft. N and 1,388 ft. W. Sec. 39, Blk. 59 ..... Shut down 1,602 ft.
Grisham & Hunter Oil Corp.'s No. 1 fee, 330 ft. from S and W of Sec. 14, Blk. 59, T.&P. ..... Location.
Hickey & Silver's No. 1 C. O. Finley, 600 ft. N and 1,980 ft. W, Sec. 20, Blk. 82 ..... Small show oil 1,331 ft.; shut down 2,260 ft.; hole full water; elev. 3,874 ft.; shut down for 30 days.

West Coast Oil & Exploration Co.'s No. 1 McGregor, C NW, Sec. 14, Blk. 81 ..... Total depth 813 ft.; fishing; bailer in hole; slight show oil 740 ft.

Scott & Dittman's No. 1 Miller, 1,160 ft. N and 2,480 ft. E, Sec. 1, Blk. 97, Public School Land ..... Rainbow 1,056 ft.; 300 ft. sulphur water 1,725 ft.; oil show 2,528 ft.; hole full sulphur water; shut down 2,886 ft.; running 6-in. casing.

ECTOR COUNTY

Anderson's No. 1 fee, 1,320 ft. E along N line, Sec. 19, and 150 ft. N at right angles with line, Sec. 18, Blk. B-16, Public School Land ..... Moving in material.

R. R. Penn et al's No. 1 Kloh-Rumsey, 330 ft. N and 2,640 ft. E of SW, Sec. 7, Blk. 44, Twp. 3s, T.&P. R.R. Sur. ..... Top salt 1,230 ft.; drlg. 2,495 ft., anhydrite; 3 bailers water 845-65 ft., red sand.

EL PASO COUNTY

Laytex' No. 1 Malone, 2,200 ft. SW and NW Sec. 46, J. M. Day Sur. ..... Shut down 1,107 ft.; running 10-in. casing; froze; trying to free.

EDWARDS COUNTY

A. M. Griffith's No. 1 Wardlow, Sec. 60, V-8, J. C. Clift Sur. ..... Shut down 3,000 ft.

FISHER COUNTY

Cranfill & Reynolds' No. 1 Barrett, Sec. 191, Blk. 1, 330 ft. from S and W of NE. B.B.B.&C.Ry. ..... Moving in material.
Cranfill & Reynolds' No. 1 Texas Cement, Sec. 10, 320 ft. from N and W of most westerly NW cor. ..... Drlg. 1,590 ft.
Magnolia Pet. Co.'s No. 1 Lee, Sec. 357, 2,310 ft. from N and 4,286 ft. from W ..... Drlg. 3,050 ft.
Mesa Oil Co.'s No. 1 Griffin, 849 ft. N and 465 ft. E of NE cor. Sec. 20, School Land ..... Shut down 3,331 ft.
Midwest Oil Co.'s No. 1 Steele, 660 ft. from S, 440 ft. from W, Sec. 210, Blk. 1 ..... Drlg. 2,115 ft.
H. Riley's No. 1 J. H. Veatch, 250 ft. S and 990 ft. E of NW cor., Sec. 4, English Sur. ..... Drlg. 1,850 ft.
Roeser & Pendleton's No. 1 Johnson, 330 ft. from N, 3,870 ft. from W, Sec. 71, Blk. 1, H.&T.C. ..... Drlg. 2,980 ft.
The Texas Company's No. 1-B Stephens, 330 ft. from N and W of S half SW, Sec. 79, Blk. 1, H.&T.C.R.R. Sur. ..... Drlg. 2,500 ft.

GARZA COUNTY

Bell Thompson's No. 1 Tuffing, 330 ft. from S, 2,310 ft. from E, Sec. 10, Blk. 6, H.&G.N. ..... Fishing 1,324 ft.
Gulf Prod. Co.'s No. 1 Street, C Sec. 7, Blk. 8, H.&G.N. R.R. Sur. ..... Drlg. 4,080 ft.
Paul Steed et al's No. 1 Boren, Sec. 136, Blk. 5, 330 ft. from N, 990 ft. from E, H.&G.N.R.R. Sur. ..... Drlg. 1,850 ft.

GLASSCOCK COUNTY

The California Co.'s No. 3 Currie, 990 ft. S and 2,310 ft. W of NE cor., Sec. 219, Blk. 29, W.&N.W.R.R. Sur. .. Shut down 1,458 ft.
California Co.'s No. 1 Jones, 330 ft. S from N and E lines, Sec. 25, Blk. 33, Twp. 2s, T.P. Sur. ..... Location.
Chal Daniel et al's No. 1 Meek, 2,310 ft. W and 1,600 ft. N of SE cor., Sec. 7, Blk. 34, Twp. 3s, T.&P. Sur.. Shut down 1,120 ft.
Fuhrman's No. 1 McDowell, 330 ft. from S and 1,650 ft. from E Sec. 24, Blk. 34, Twp. 2s, T.&P. ..... Location.
Houston Oil Co.'s No. 1 McDowell, 330 ft. from N and 2,310 ft. from E, Sec. 30, Blk. 33, Twp. 2s ..... Shut down 2,602 ft.
Kirby Pet. Co.'s No. 1 Baker, 330 ft. from N and W lines of Sec. 23, Blk. 33, Twp. 2s, T.P. Sur. ..... Drlg. 950 ft.
Kirby Pet. Co.'s No. 2 Phillip, 330 ft. from N and W, Sec. 23, Blk. 33, Twp. 2s, T.&P.R.R. Sur. ..... Location.
Landreth et al's No. 1 Huston, Sec. 29, Blk. 35, Twp. 2s, 330 ft. from S, 2,310 ft. from E, T.&P. Sur. ..... Rigging up.
Lion Oil & Ref. Co.'s No. 1 Coffee, 330 ft. from N and E, Sec. 22, Blk. 33, Twp. 2s, T.&P.R.R. Sur. ..... Total depth 2,240 ft.; preparing to pump.
Midwest Oil Co.'s No. 1 Edwards, 330 ft. from S, 2,259 ft. from E. Sec. 20, Blk. 34, T.&P.R.R. Sur. ..... Drlg. 2,935 ft.
Schermerhorn Oil Co.'s No. 1 Phillips, Sec. 23, Blk. 33, Twp. 2s, T.&P.R.R. Sur., 330 ft. N, 2,310 ft. E ..... Drlg. 2,224 ft.
E. L. Smith's No. 1 Coffee, 330 ft. from S and E of Sec. 15, Blk. 33, Twp. 2s, T.&P. Sur. ..... Drlg. 275 ft.
Sun Oil Co.'s No. 1 Phillips, Sec. 14, Blk. 33, Twp. 2s, 330 ft. from S, 2,310 ft. from W ..... Drlg. 1,490 ft.
Sun Oil Co.'s No. 2 Phillips, 330 ft. from S and W lines, Sec. 14, Blk. 33, Twp. 2s, T.P. Sur. ..... Location.
Texas State Oil Co.'s No. 1 Coffey, 330 ft. from S and 990 ft. from E, Sec. 19, Blk. 34, Twp. 2s ..... Shut down 2,461 ft.
World Oil Co.'s No. 2-C McDowell, Sec. 21, Blk. 34, Twp. 2s, 330 ft. S and 2,310 ft. E of NW cor. ..... Shut down for orders.

HOWARD COUNTY

American Maracaibo Co.'s No. 3-A Settles, Sec. 6, Blk. 32, Twp. 2s, 777 ft. from N, 990 ft. from W, T.&P. R.R. Sur. ..... Location.

California Co.'s No. 3 Roberts Lease No. 1, Sec. 137, Blk. 29, 1,654 ft. from S, 990 ft. from E, W.&N.W.R.R. Sur. ..... Drlg. 2,100 ft.

Continental Oil Co.'s No. 5-C Chalk, 1,140 ft. from N and 2,440 ft. from E, Sec. 140, Blk. 29, W.&N.W. R.R. Sur. ..... Shut down 1,775 ft.

Continental Oil Co.'s No. 6-C Chalk, 1,520 ft. from N and 2,440 ft. from E, Sec. 140, Blk. 29, W.&N.W. R.R. Sur. ..... Location.

Continental Oil Co.'s No. 6-E Chalk, 990 ft. N and 1,650 ft. E of SW cor., Sec. 134, Blk. 29, W.&N.W. R.R. Sur. ..... Drlg. 1,760 ft.

Continental Oil Co.'s No. 1 Kloh-Rumsey, 990 ft. S and 330 ft. W NE cor., Sec. 13, Blk. 33, Twp. 2s, T.&P. R.R. Sur. ..... Drlg. 500 ft.

Continental Oil Co.'s No. 2 Kloh-Rumsey, 2,310 ft. S, 330 ft. W of NE cor. Sec. 13, Blk. 33, Twp. 2s, T.&P.R.R. Sur. ..... Rigging up.

Continental Oil Co.'s No. 3 Kloh-Rumsey, 1,650 ft. S and 330 ft. W of NE cor. Sec. 13, Blk. 33, Twp. 2s, T.&P. Sur. ..... Spudding.

Continental Oil Co.'s No. 9-A Settles, 220 ft. from N, 660 ft. from E, Sec. 135, Blk. 29, W.&N.W.R.R. Sur. ..... Drlg. 1,140 ft.

Cosden Oil Co.'s No. 6 Roberts-A, 200 ft. N and E of SW cor., Sec. 129, Blk. 29, W.&N.W.R.R. Sur. ..... Drlg. 1,440 ft.

Godley Pet. Co.'s No. 6 Hooks, 1,520 ft. from N, 2,440 ft. from W, Sec. 140, Blk. 29, W.&N.W.R.R. Sur. ..... Shut down 1,755 ft.

Group No. 1 & Continental Oil Co.'s No. 7-A Settles, 1,650 ft. N and 2,310 ft. W of SE cor. Sec. 135, Blk. 29, W.&N.W.R.R. Sur. ..... Rig.

Group No. 1 & Continental Oil Co.'s No. 8-A Settles, 990 ft. N and 2,310 ft. W of SE cor. Sec. 135, Blk. 29, W.&N.W.R.R. Sur. ..... Location.

Gulf Prod. Co.'s No. 8 Clay, 330 ft. S and 1,650 ft. W of NE cor. W half Sec. 155, Blk. 29, W.&N.W.R.R. Sur. .. Location.

Howard Oil Corp.'s No. 2 Abrams, 990 ft. from N and 330 ft. from W of Sec. 5, Blk. 32, Twp. 2s, T.&P. R.R. Sur. ..... Top pay 2,250 ft.; shut down 2,280 ft.

Magnolia Pet. Co.'s No. 13 Dora Roberts, 2,440 ft. N and 1,650 ft. E of SW cor. Sec. 136, Blk. 29, W.&N.W. Sur. ..... Shut down 2,927 ft.; set 8¼-in. casing.

Marland Prod. Co.'s No. 3 Clay-F, 250 ft. S and 660 ft. W of NE cor., Sec. 138, Blk. 129, W.&N.W.R.R. Sur. .. Shut down 2,675 ft. with show oil 2,595-2,675 ft.

Merriwether's No. 1 Smith, 150 ft. from S, 2,490 ft. from W, Sec. 45, Blk. 33 ..... Shut down 460 ft.

Merrick & Bristow's No. 10 Roberts, Sec. 137, Blk. 29, 1,155 ft. from S, 1,980 ft. from W ..... Drlg. 1,010 ft.

Merrick & Lamb's No. 9 Clay, 660 ft. from S and 360 ft. from E, Sec. 126, Blk. 29 ..... Show oil 1,745-60 ft.; drlg. 2,650 ft.

Moody Oil Corp.'s No. 29-B, Sec. 137, Blk. 29, 330 ft. from N and 1,650 ft. from W ..... Shut down 248 ft.

Moody Oil Co.'s No. 18-B Roberts, 280 ft. S and 2,280 ft. E NW cor. Sec. 137, Blk. 29, W.&N.W.R.R. ..... Shut down 238 ft.

Moody Oil Co.'s No. 19-B Roberts, Sec. 137, Blk. 29, 1,040 ft. from N, 2,310 ft. from W ..... Drlg. 1,368 ft.

Moody Oil Corp.'s No. 21-B Roberts, Sec. 137, Blk. 29, 2,310 ft. from N and 990 ft. from W, W.&N.W. Sur. .. Shut down 1,325 ft.

Moody Oil Co.'s No. 23-B Roberts, 990 ft. from N and W of Sec. 137, Blk. 29 ..... Shut down 261 ft.

Moody Oil Co.'s No. 19-E Roberts, 190 ft. from N and 2,310 ft. from E, Sec. 136, Blk. 29 ..... Cellar.

Moody Oil Corp.'s No. 20-E Roberts, 1,650 ft. S, 2,310 ft. W of NE Sec. 136, Blk. 29 ,W.&N.W.R.R. Sur. ..... Location; elevation 2,787 ft.

Plymouth Oil Co.'s No. 4 Abrams, 330 ft. from N and 1,650 ft. from W, Sec. 5, Blk. 32, Twp. 2s ..... Top pay 2,480 ft.; 1,600 ft. oil in hole; shut down 2,519 ft.

Plymouth Oil Co.'s No. 5 Abrams, Sec. 5, Blk. 32, Twp. 2s, 1,650 ft. from N, 330 ft. from W, T.&P. .... Shut down 1,700 ft.

Plymouth Oil Co.'s No. 6 Abrams, Sec. 5, Blk. 32, Twp. 2s, 1,650 ft. from S, 330 ft. from W, T.&P. ..... Building rig.

Plymouth Oil Co.'s No. 7 Abrams, 2,310 ft. from N, 330 ft. from W, Sec. 5, Blk. 32, Twp. 2s, T.&P. Sur. ..... Location.

Pure Oil Co.'s No. 2 Scrivner, 330 ft. from S and 1,650 ft. from W, Sec. 4 Blk. 32, Twp. 2s T. & R.R. Sur... Location.

Schmerhorn Oil Co.'s No. 1 Abrams, 2,310 ft. from S and 1,650 ft. from W, Sec. 13, Blk. 33, Twp. 2s, T.&P.R.R. Sur. ..... Location.

Shell Pet. Corp.'s No. 1-B Settles, 1,650 ft. from S, 2,310 ft. from W, Sec. 135, Blk. 29, W.&N.W.R.R. Sur..... Drlg. 2,083 ft. (corrected).

Shell Pet. Corp.'s No. 1 Kloh-Rumsey, 2,310 ft. from S and 330 ft. from E, Sec. 13, Blk. 33, Twp. 2s, T.&P. R.R. Sur. ..... Total depth 2,305 ft.: swabbing.

Shell Pet. Corp.'s No. 2-A Roberts, 1,320 ft. from N, 1,650 ft. from W, Sec. 156, Blk. 29, W.&N.W.R.R. Sur. ..... Drlg. 2,931 ft.

Simms Oil Co.'s No. 2 Clay, Sec. 127, Blk. 29, 300 ft. from S and 2,340 ft. from W ..... Location.

Sprague Oil Co.'s No. 3 Roberts, 990 ft. from N and 330 ft. from W, Sec. 156, Blk. 29, W.&N.W.R.R. Sur. ..... Shut down 1,720 ft.

Ward Oil Co.'s No. 10 Roberts, 1,485 ft. from S and 640 ft. from W line, Sec. 137, Blk. 29, W.&N.W.R.R. Sur... Drlg. 1,420 ft.

Ward Oil Co.'s No. 12 Roberts, Sec. 137, Blk. 29, 2,430 ft. from S, 1,180 ft. from W ..... Drlg. 1,105 ft.

Ward Oil Co.'s No. 14 Roberts, 2,430 ft. from S, 2,010 ft. from W, Sec. 137, Blk. 29 ..... Location.

Ward Oil Co.'s No. 15 Roberts, 2,430 ft. from S and W, Sec. 137, Blk. 29 ..... Location.

Witherspoon's No. 3 Abrams, 920 ft. S, 723 ft. E, Sec. 3, Blk. 32 ..... Drlg. 1,956 ft.

HUDSPETH COUNTY

California Co.'s No. 1 University, 3,821 ft. N and 2,564 ft. E of SW cor., Sec. 19, Blk. E ..... Drlg. 2,100 ft.

George Richardson's No. 1 Faxton, 2,640 ft. from N and W, Sec. 9, Blk. 16 ..... Shut down 205 ft.

Western States Oil Co.'s No. 1 Moore, C SE Sec. 16, Blk. 71, Twp. 6, T.&P. Sur. ..... Shut down 2,760 ft.

Western States Oil Co.'s No. 1 Gardner & Moseley, NE NW, Sec. 12, Blk. 18 ..... Shut down 3,140 ft.; fishing.

IRION COUNTY

Banner's No. 2 Nutt, Subdivision 5, 150 ft. from N and E of W half Gonzales County School Lands ..... Location.

Brown & Fox's No. 2 Tankersley, 150 ft. from N and 500 ft. from E lines of S half of Sec. 712, F. Willig Sur. ..... Location.

Crawford Oil Co.'s No. 1 Williams, 450 ft. from N, 150 ft. from W, Subd. 8 ..... Shut down 900 ft.

Carl Cromwell's No. 1 Nutt, 150 ft. from N, 1,160 ft. from W, Subd. 6, Gonzales County School Land .... Drlg. 640 ft.

Carl Cromwell's No. 1 Tankersley, 2,490 ft. from S and E, Sec. 1,219, T.C.R.R. Sur. ..... Rigging up.

Fox & Miller's No. 1 Tankersley, 150 ft. from S, 1,250 ft. from W, Sec. 711, I. G. Hesig ..... Location.

Fuhrman Pet. Co.'s No. 1 Nutt, 150 ft. from N and W, Subd. 4 ..... Spudding.

Kimbrough & Flinchbaugh's No. 1 Tankersley, 160 ft. S and 200 ft. W of NE cor. S half, Sec. 712, Ford Willig Sur. ..... Show oil 1,318-29 ft.; total depth 1,335 ft.; averaging 60 bbls. daily 37 degrees gravity oil; shut down for storage.

Kingwood Oil Co. et al's No. 1 J. D. Sugg, SE NW SE Sec. 19, Blk. 7, E.&T.C. Sur. ..... Show gas 7,656 ft.; set 4½-in. casing 7,550 ft.; total depth 7,677 ft.

Simms Oil Co.'s No. 1 Carter, Sec. 87, Blk. 1, 330 ft. from N and E, H.&T.C.R.R. Sur. ..... Location.

J. A. Starkweather's No. 1 Lindley, Sec. 1,160½, 900 ft. from S, 150 ft. from E, H.&T.C. Sur. on E ..... Location.

Webb's No. 2 Nutt, 200 ft. from N and 711 ft. from E, Subd. 5 ..... Top pay 1,359 ft.; total depth 1,539 ft.; pumping 10 bbls. daily.

P. H. Williams' No. 1 Ash, C of Sec. 20, Washington County ..... Cleaning out 3,535 ft.

JEFF DAVIS COUNTY

J. K. Hughes Dev. Co.'s No. 2 Means, 1,622 ft. N line, 600 ft. W line, Sec. 345, H.&T.C. Sur. ..... Show gas 3,271 ft.; fresh water 3,000-05 ft.; underreaming 5 3/16-in. casing; anut down 4,005 ft.; 600 ft. fresh water 4,000-36 ft.

JONES COUNTY

J. H. Adsit et al's No. 1 Swenson, C of NE of SE, Sec. 193, B.B.B.&C. Sur. ..... Underreaming 1,520 ft.

Cosden-Herbert et al's No. 3 Bickley, 330 ft. N and W of SE cor. of S half NW, Sec. 50, Blk. 18 ..... Rig.

Sedgwick O. & G. Co.'s No. 1 Morrison, 300 ft. from S and 1,320 ft. from W of Sec. 9, Blk. 1, T.&N.O. ..... Drlg. 1,855 ft.

KENT COUNTY

White & Smith's No. 1 Pursley estate, 1,320 ft. from E and 2,640 ft. from S of Sec. 8, Blk. H, H.&T.B. ..... Location.

KIMBLE COUNTY

C. L. Bryant et al's No. 1 Lambert, 700 ft. from N and W line of F. Lotta Sur. ..... Shut down 750 ft.

Lindsay Bros.' No. 1 Anderson, Sec. 167, 1,320 ft. from N and E ..... Shut down 990 ft.

McLean & Jamison's No. 1 Cannon, 1,940 ft. N and 300 ft. W of SE cor. Robert Cochran Sur. ..... Shut down 1,500 ft.

LOVING COUNTY

Humble Oil & Ref. Co.'s No. 1 Kloh, 2,640 ft. N and W Sec. 35, Blk. 55, Twp. 2, T.&P.R.R. Sur. ..... Spudding 160 ft.

Lockhart Co.'s No. 2 Allen, 330 ft. from NE, 1,650 ft. from NW, Sec. 82, Blk. 33, H.&T.C. ..... Location.

Lockhart & Co.'s No. 3 Hubbard, 330 ft. from NE and SE, Sec. 83, Blk. 33, H.&T.C. ..... Top salt 775 ft.; drilling 1,210 ft. anhydrite.

Lockhart & Co.'s No. 4 Hubbard, 1,660 ft. NE, 330 ft. NW, Sec. 83, Blk. 33, H.&T.C. ..... Drlg. 475 ft.

Lockhart & Co.'s No. 1 Hayzell, 2,792 ft. SW of NE line and 660 ft. NW of SE line, Sec. 84, Blk. 33, H.&T.C. R.R. Sur. ..... Top salt 700 ft.; drlg. by tools 2,980 ft., anhydrite and gray lime.

Lockhart & Co.'s No. 1-F Wheat, 990 ft. NE and SE Sec. 85, Blk. 33, H.&T.C. ..... Total depth 3,197 ft.; plugged back 1,180 ft.; spraying 10 bbls. oil; cleaning out.

LYNN COUNTY

Lubewell Oil Co.'s No. 1 May, 2,310 ft. S, 2,310 ft. W, Sec. 10, Blk. 7, E.L.R.R. ..... Shut down 100 ft.

George McCamey's No. 1 Edwards, 165 ft. N and E, Sec. 5, Blk. 2, L.S.&W. Sur. ..... Top salt 2,140 ft.; oil show 1,580-90 ft.; cem. 8-in. casing 3,500 ft.; drlg. lime 4,530 ft.

MENARD COUNTY

J. C. Barnett's No. 2 Callan, Sec. 1, 1,950 ft. from S, 1,190 ft. W ..... Underreaming 750 ft.

MITCHELL COUNTY

Seiger's No. 1 Scott, C of NE of SW, Sec. 36, Blk. 17, S.P.R.R. Sur. ..... Shut down 730 ft.

Texas & Wheeler's No. 1 Radford, 1,320 ft. N and W of Sec. 1, Blk. 27, T.&P. Sur. ..... Running 6⅝-in. casing; total depth 4,154 ft.

NOLAN COUNTY

Gibson & Johnson's No. 1 Bond, 1,320 ft. from N and 1,980 ft. from E of Sec. 42, Blk. 20, T.&P. ..... Location.

Phillips Pet. Co.'s No. 1 Plunkett, 330 ft. N and W of SE cor. NW, Sec. 66, Blk. 23, T.&P. Sur. ..... Hole full sulphur water 3,685 ft., drlg. 3,710 ft.

PECOS COUNTY

California Co.'s No. 3 Smith, Lease No. 5, Sec. 16, Blk. 194, 337 ft. from S and 166 ft. from E, G.C. &S.F. Sur. ..... Location.

California Co.'s No. 4 Smith lease No. 1, 1,018 ft. from N and 330 ft. from E, Sec. 37, Blk. 194, G.C.&S.F..... Location.

Continental Oil Co.'s No. 1-A University, 1,320 ft. from N and W of Sec. 6, Blk. 17 ..... Fishing 835 ft.; top salt 790 ft.

George Morgan's No. 2 Torborg, 180 ft. from S and 330 ft. from E of W half of Sec. 539, Arnold & Barrett... Location.

M. M. Rowan's No. 1 University, C NE of Sec. 25, Blk. 16, University Land ..... Drlg. 1,365 ft.

California Co.'s No. 5 Smith, Lease No. 1, 330 ft. from N. 2,405 ft. from W. Sec. 21, Blk. 194, G.C.&S.F. ... Drlg. 800 ft.

California Co.'s No. 8 Smith, Lease No. 1, 330 ft. from S and 3,097 ft. from W. Sec. 23, Blk. 194, G.C.&S.F... Drlg. 1,580 ft.

California Co.'s No. 19 Yates, Lease No. 1, Sec. 34, Blk. 194, 1,042 ft. from N and 1,919 ft. from E, G.C. &S.F. ..... Shut down 1,252 ft.

California Co.'s No. 20 Yates, Lease No. 1, 1,042 ft. from N, 2,591 ft. from W, Sec. 34, Blk. 194, G.C. &S.F. ..... Shut down 1,310 ft.

California Co.'s No. 1 University-Landrum, Sec. 12, Blk. 18, 330 ft. from S. 1,065 ft. from E. University Land.. Drlg. below 310 ft.

Cosby's No. 2 Smith, Sec. 24, Blk. 194, 1,650 ft. from N, 330 ft. from E, G.C.&S.F.R.R. Sur. ..... 1,000 ft. oil in hole; total depth 1,400 ft.; top pay 1,355 ft.; shut down 1,648 ft.

Cowboy Evans' No. 1 Pecos Valley, 2,310 ft. from NW line, 990 ft. from SW line of Sec. 36, Blk. 3, H.&T.C. R.R. Sur. ..... Top salt 1,215 ft.; total depth 1,562 ft.; top pay 1,556 ft.; flowed 10 bbls. after standing 4 hrs.

Crowey's No. 1 Heiner, 2,400 ft. each way from N and E lines, Sec. 589, G.C.&S.F.R.R. Sur. ..... Shut down 1,300 ft.

Gibson-Johnson's No. 1 Grace, 330 ft. N, 990 ft. from E, Sec. 3, Blk. 179 ..... Total depth 1,793 ft.; skidding rig.

Gulf Prod. Co.'s No. 1 State-Hale-A, 330 ft. S and W of NE cor., Sec. 16, Blk. 30, University Land ..... Drlg. 260 ft.

Gulf Prod. Co.'s No. 21-A Smith, 1,544 ft. N and 330 ft. W of SE cor. Sec. 28, Blk. 194, G.C.&S.F.R.R. Sur. ... Location.

Gulf Prod. Co.'s No. 20-B Smith, Sec. 22, Blk. 194, 330 ft. from N, 2,322 ft. from E, G.C.&S.F. ..... Drlg. 875 ft.

Gulf Prod. Co.'s No. 25 Yates, 1,015 ft. N and 3,083 ft. E of SW cor., R. C. School Land ..... Drlg. 210 ft.

Henshaw et al's No. 1 University, 330 ft. from N and W of NE, Sec. 13, Blk. 18 ..... Rigging up.

Henshaw et al's No. 2 University, 330 ft. from N and E lines of NW of NE of Sec. 13, Blk. 18 ..... Location.

Henshaw et al's No. 3 University, 330 ft. from S and E of NW of NE of Sec. 13, Blk. 18 ..... Location.

Henshaw et al's No. 4 University, 330 ft. from S and W of NW of NE of Sec. 13, Blk. 18 ..... Location.

Henshaw Oil Corp.'s No. 1 McDonald, 330 ft. from N and W of S 100 ac. of N 180 ac., Sec. 2, H.E.&W.T. ..... Location.

Humble O. & R. Co.'s No. 11 M. A. Smith, 330 ft. from S and 2,150 ft. from E of Sec. 36, Blk. 194, G.C. &S.F. ..... Drlg. 445 ft.

Independent & Rowan & Tong's No. 2 McDonald, 153 ft. from W line and 170 ft. from N line of S half NE Sec. 46, Blk. 12 ..... Location.
Independent & Rowan & Tong's No. 3 McDonald, 330 ft. from S and W line of NE Sec. 46, Blk. 12 ..... Location.
Jayhawk Oil Co.'s No. 1 Price, 1,310 ft. from W, 330 ft. from S, Sec. 6, Blk. 12, H.&G.N.R.R. Sur. ..... Total depth 100 ft.; set 12-in. casing.
J. L. Kennedy's No. 1 Roberts, C of Sec. 78, Blk. 3, T.&P.R.R. Sur. ..... Fishing 260 ft.
Sam Kitts et al's No. 1 Sherbino, 330 ft. from N and 990 ft. from W line, Sec. 52, Blk. C-4, G.C.&S.F.R.R. ..... Top salt 976 ft.; drlg. 1,235 ft.
Landreth's Prod. Co.'s No. 1 University, 330 ft. from N and W lines of E half of SE, Sec. 13, Blk. 18, University Land ..... Shut down 950 ft.; estimated 66,000,000 ft. gas at 960 ft.; rig burned; shut in.
Landreth Prod. Co.'s No. 1-C University, 330 ft. from N and E, NW of SW of Sec. 31, Blk. 16 ..... Location.
Landreth Prod. Co.'s No. 2-C University, 330 ft. from N and W of NW of SW, Sec. 31, Blk. 16 ..... Location.
Landreth Prod. Co.'s No. 1-D University, 990 ft. from S and 990 ft. from W of Sec. 31, Blk. 16 ..... Location.
Landreth Prod. Co.'s No. 1 McDonald, Sec. 46, Blk. 12, 2,310 ft. from S and E, H.&G.N.R.R. Sur. ..... Rigging up.
Landreth & World Oil Co.'s No. 2-B University, Sec. 13, Blk. 18, 660 ft. S of No. 1 University Land ..... Spudding.
Landreth Prod. Co.'s No. 1-C University, 2,310 ft. from S and W, Sec. 31, Blk. 16, University Land ..... Location.
Seminole Oil Co.'s No. 1 Pecos Valley, Sec. 22, Blk. 10, 360 ft. from SW, 2,280 ft. from SE, H.&G.N. Sur. ..... Location.
Mauch & Kroger's No. 1 Holmes, Sec. 5, Blk. 178, T.C. Sur. ..... Shut down 1,442 ft.
McMan Oil & Gas Co.'s No. 5 Richardson, Sec. 107, 330 ft. N. 200 ft. W of SW cor., Sec. 101, T.C.R.R. Sur. ..... Drlg. 160 ft.
Milham Exploration Co.'s No. 1 McDonald, 153 ft. from S and 170 ft. from E of N half of NW, Sec. 46, Blk. 12, H.&G.N. ..... Location.
Merrick-Bristow's No. 1 Neville, 330 ft. from S and W, Sec. 42, Blk. 12, H.&G.N.R.R. Sur. ..... Location.
McMan Oil & Gas Co.'s No. 8-C Smith, 1,667 ft. S and 330 ft. W of NE cor., Sec. 25, Blk. 194, G.C.&S.F. R.R. Sur. ..... Location.
McMan Oil & Gas Co.'s No. 9-C Smith, 3,647 ft. S and 330 ft. W of NE cor. Sec. 25, Blk. 194, G.C.&S.F. R.R. ..... Location.
R. E. Moore's No. 1 Arnold, 1,320 ft. from S and 660 ft. from E lines of Sec. 18, Blk. 1, H.&T.C.R.R. ..... Shut down 1,170 ft.
Moncrief's No. 1 Clarkson, Sec. 84, Blk. 11, H.&T.N.R.R. Sur., 2,310 ft. from N and W ..... Rigging up.
Moncrief et al's No. 1 Tippett, 330 ft. from S, 330 ft. E of C, Sec. 36, Blk. 12, H.&G.N. ..... Location.
Moncrief's No. 5 Tippett, 330 ft. N and 200 ft. W of SW cor., Sec. 101, located in Sec. 107, C.T.&M.C.R.R. Sur. ..... Location.
Moncrief et al's No. 1 University, 1,470 ft. from N and 150 ft. from E, Sec. 27, Blk. 18, University Land ..... Drlg. 1,500 ft.
George Morgan's No. 2 Toborg, Sec. 539, Blk. 1, 150 ft. S of Moncrief's No. 1 ..... Spudding 260 ft.
Mid-Kansas Oil & Gas Co.'s No. 7 Smith, 330 ft. N and 227 ft. E of NW cor., Sec. 21, Blk. 194, G.C.&S.F. ..... Rig.
Mid-Kansas Oil & Gas Co.'s No. 31 Yates, 280 ft. W, 1,356 ft. S of NW cor., Sec. 59, Blk. 1, I.&G.N. ..... Drlg. 920 ft.
Mid-Kansas Oil & Gas Co.'s No. 32 Yates-A, 225 ft. N of most southerly N line and 1,308 ft. E of most western E line, Sec. 32, Blk. 194, I. G. Yates Sur. A-8,195 ..... Location.
Mid-Kansas Oil & Gas Co.'s No. 3-E Yates, Sec. 59, Blk. 1, 1,335 ft. from N and 964 ft. from W, I.&G.N. ..... Drlg. 145 ft.
S. B. Owen's No. 1 Masterson, 330 ft. NE of SW line and 330 ft. NW of SE of Sec. 104, Blk. 10, H.&G.N. ..... Location.
J. D. O'Mara's No. 1 Bernett, Sec. 592, 1,460 ft. from S. 150 ft. from E, G.C.&S.F. ..... Fishing 875 ft.
J. D. O'Mara's No. 1 Streety, C of Sec. 1, W. P. Howard Sur. ..... Shut down 825 ft.
Pecos Crude Oil Pur. Co.'s No. 3 Pecos Valley, 990 ft. from NW, 1,650 ft. from SW, Sec. 22, Blk. 10 ..... Top salt 1,115 ft.; top pay 1,610 ft.; 75 ft. oil in hole; show gas at 1,597 ft. and 1,626 ft.; total depth 1,950 ft.; flowing 30 bbls. after shot.
Perrin et al's No. 1 Eaton, 150 ft. each way from NE and NW lines, Sec. 27, Blk. 39, H.&T.C. Sur. ..... 18,000,000 ft. gas 1,490-1,502 ft.; spraying salt water from behind 8-in. casing set at 1,180 ft.; shut down 1,502 ft.; 5 2/16-in. casing set on bottom with last joint perforated; 18,000,000 ft. gas shut in.
Perren's No. 1 Peterson, 150 ft. from NW, 150 ft. from SW, Sec. 34, Blk. 10, H.&T.C. ..... Show oil and gas 1,787 ft.; top salt 900 ft.; drlg. 1,993 ft.
Phillips Pet. Co.'s No. 2 Pryor, 660 ft. from N and W line, Sec. 78, Blk. OW ..... Digging cellar.
Phillips Pet. Co.'s No. 3 Ramsey, 2,635 ft. from N and 1,070 ft. from E of Sec. 17, Blk. 194, G.C.&S.F. ..... Location.
B. J. Spikes' No. 1 George Brown, 2,490 ft. SE and SW line, Sec. 8, Blk. 3 ..... Show oil 1,180-90 ft.; shut down 2,257 ft.
Schumaker et al's No. 1 Williams et al, 330 ft. N of middle of S line, Sec. 1, Blk. 117, G.C.&S.F. ..... Shut down 1,483 ft.
Shell Pet. Corp.'s No. 1 Jackson, 330 ft. NW of SE line and 330 ft. NE of SW line, Sec. 28, Blk. S, H.&T.C. Sur. ..... Top salt 1,020 ft.; drlg. 2,130 ft.
Shell Pet. Corp.'s No. 1 Owen et al, 220 ft. each way from E cor. Sec. 16, Blk. 5, H.&T.C. ..... Location.
Skelly Oil Co.'s No. 2 Tippett, 974 ft. N of No. 1, Sec. 108 ..... Shut down 1,302 ft.
Southern Crude O. P. Co.'s No. 1 Jackson T-139, Sec. 28, Blk. 3, 1,487 ft. from NE, 2,519 ft. from SE cor. ..... Location.
Sun Oil Co.'s No. 1 University-Carlson, Sec. 34, Blk. 18, 990 ft. from N and 1,350 ft. from W. University ..... Drlg. 540 ft.
Sun Oil Co.'s No. 1 University-Toler, Sec. 25, Blk. 18, 330 ft. from N and 2,310 ft. from E ..... Rigging up.
Sun Oil Co.'s No. 2 University, Sec. 8, Blk. 17, 330 ft. from N and 353 ft. from W. University Land ..... Drlg. 365 ft.
Talbot et al's No. 1 Unsicker, 150 ft. each way from NE and SE cor. line of Sec. 25, Blk. 10, H.&G.N. Sur. ..... Material on ground.
Taylor-Link's No. 3 University, Sec. 31, Blk. 16, 330 ft. from N and W ..... Cem. 8¼-in. casing 878 ft.
Taylor-Link's No. 4 University, Sec. 31, Blk. 16, 990 ft. from N and 1,050 ft. from W ..... Drlg. 650 ft.
Taylor-Link's No. 5 University, 990 ft. from N and 330 ft. from W of Sec. 30, Blk. 16 ..... Location.
Taylor-Link's No. 6 University, 330 ft. from N and 330 ft. from E of W half of SE. Sec. 13, Blk. 18 ..... Location.
The Texas Co.'s No. 1 McDonald, NE cor. of SW, Sec. 46, Blk. 12 ..... Location.
Texas-Phillips' No. 1 Campbell, 1,320 ft. from SW, 330 ft. from SE, Sec. 46, Blk. 10, H.&G.N. ..... 1,060 ft. oil in hole; oil from 1,710-13 ft.; hole fills 250 ft. in 12 hrs.; fishing 2,055 ft.
Tidal Oil Co.'s No. 1 McDonald, 153 ft. from N and 170 ft. from E of S half NW, Sec. 46, Blk. 12 ..... Spudding.
Tidal Oil Co.'s No. 2 McDonald, 330 ft. from S and E lines of S half NW, Sec. 46, Blk. 12 ..... Location.
Tidal Oil Co.'s No. 2 University, 2,970 ft. from N, 2,310 ft. from E, Sec. 3, Blk. 18, University Land ..... Shut down 1,877 ft.
Tower & McKanna's No. 1 University, Sec. 14, Blk. 16, 2,310 ft. from N and E ..... Drlg. 825 ft.
Tower & McKanna's No. 1 University, 330 ft. from S and E lines of Sec. 3, Blk. 17 ..... Gas show 1,842 ft.; shut down 1,872 ft.
Transcontinental Oil Co.'s No. 1 University, NE NW SW Sec. 18, Blk. 18 ..... Top lime 1,155 ft.; drlg. 4,443 ft.
Trees Oil Co.'s No. 2 Trees, 330 ft. from N and W of SE cor., Sec. 43, Blk. 8, H.&G.N.R.R. Sur. ..... Drlg. 1,200 ft.
Trees Oil Co.'s No. 3 Trees, 330 ft. from S and W of Sec. 90, Blk. 8, H.&G.N. ..... Location.
R. D. Webb's No. 2 fee, 1,655 ft. from N and 551 ft. from E line of Sec. 312, L. P. Scott Sur. ..... Drlg. 650 ft.
World Oil Co.'s No. 1 University, 330 ft. from N and 2,310 ft. from E of Sec. 31, Blk. 16, University Land ..... Making 7 bailers oil hourly 1,395-1,405 ft.
World Oil Co.'s No. 1-B University, 330 ft. from N and E, Sec. 13, Blk. 18 ..... Total depth 1,613 ft.; 15,000,000 ft. gas; 35 to 50 bbls. oil daily.
World Oil Co.'s No. 2-B University, Sec. 13, Blk. 18, 1,660 ft. from N, 1,020 ft. from E, University Land ..... Spudding.

PRESIDIO COUNTY

L. C. Brite's No. 4 Brite, 271 ft. from N, 1,188 ft. from E, Sec. 245, Blk. 4 ..... Shut down 670 ft.
Eastland Oil Co.'s No. 1 Tootle, C Sec. 17, Blk. 1, D.P. R.R. Sur. ..... Spudded; shut down.
Phillips Pet. Co., Empire G. & F. Co., Delmar Co. and C. E. Miller's No. 1 Tootle estate, C NE, Sec. 75, Blk. 3, D.&P.R.R. Sur. ..... Slight oil show and gas at 2,707 ft.; show oil at 2,767 ft.; drlg. 4,655 ft.
T. P. Coal & Oil Co.'s No. 1 Bogel, 330 ft. S and W, Sec. 83, Blk. 8, G.H.&S.A. ..... Drlg. 1,250 ft.

REAGAN COUNTY

Big Lake Oil Co.'s No. 1-C University, 2,598 ft. S and 250 ft. W of NE cor., Sec. 1, Blk. 2, University Land ..... Top pay 2,903 ft.; 1,000 ft. fluid in hole; drlg. 4,135 ft.
Kemrow Co.'s No. 1 Sawyer Cattle Co., 1,320 ft. from N and 1,980 ft. from E line, Sec. 8, J. G. Robinson Sur. ..... Location.
Thomas & Brann et al's No. 1 Hughes, C NE of Sec. 7, Blk. 1, T.C.R.R. Sur. ..... Location.
Skelly Oil Co.'s No. 4 University-Grayson, Sec. 33, Blk. 8, 990 ft. W and 660 ft. N of No. 2 ..... Drlg. 1,460 ft.

REEVES COUNTY

Exploration Co.'s No. 1 A. A. Kinney, 1,500 ft. W of NE cor. Sec. 26, Blk. C-18, Public School Land, elev. 2,847 ft. ..... Drlg. by tools 30 ft. off bottom; total depth 2,900 ft.
H. T. Hansford's No. 1 Williams, 150 ft. from S and W, Sec. 17, Blk. 6, H.&G.N. ..... Spudded and shut down.
Black & Fink's No. 1 Brooks, 1,980 ft. N and 660 ft. W, Sec. 16, Blk. 59 ..... Shut down 500 ft.
Southern Crude O. P. Co.'s No. 1 Kloh-Rumsey, 2,310 ft. N and W SE cor., Sec. 23, Blk. 51 ..... Drlg. 2,100 ft.
Thomas & Brann et al's No. 1 Hughes, C of NE of Sec. 7, Blk. L, T.C.R.R. ..... Location.
David R. Thompson's No. 1 A. A. Eddins, Sec. 9, Blk. C-1 ..... Drlg. by casing 5,568 ft.

RUNNELS COUNTY

Gibson-Johnson's No. 1 Woods, Sec. 529, 2,600 ft. from S and 300 ft. from E, T. T. Williams Sur. ..... Spudded and shut down.
Herbert Oil Co.'s No. 1 Currie, 1,866 ft. SE of NW line, 335 ft. SW of NE line, Gray Carroll Sur. ..... Underreaming 2,640 ft.
Vacuum Oil Co.'s No. 4 McMillan, 555 ft. S and 717 ft. W of NE cor., Lot 22, Domingo Diaz Sur., No. 532. ..... Location.

SCHLEICHER COUNTY

Fort McKavet's No. 1 Tisdale, Sec. 1,499, River Section, 3,630 ft. from S, 150 ft. from W ..... Set 6-in. casing 3,023 ft.; shut down 3,500 ft.
Interstate's No. 1 Whitten, 1,320 ft. from N and W, Sec. 35, Blk. LL, T.C.R.R. Sur. ..... Hole slopped over with oil at 4,925 ft.; made one good flow; drlg. 5,130 ft.; set 6-in. casing 5,050 ft.
Underwood's No. 1 Tisdale, 2,095 ft. N and 1,185 ft. from E, Sec. 74, Blk. LL ..... Spudded and shut down.

SCURRY COUNTY

Camp Spring Oil & Ref. Co.'s No. 3 Guinn, 1,300 ft. from S. 300 ft. from E. Sec. 12, Blk. 3, H.&T.C.R.R. Sur. ..... Drlg. 506 ft.
Cottingham & Briscoe's No. 1 Trees, C SE Sec. 147, Blk. 97 ..... Drlg. 1,940 ft., red sand.
I. B. Mimms et al's No. 1 J. J. Koonsman, Sec. 216, Blk. 2, H.&T.C. Sur. ..... Spudded and shut down 300 ft.
G. E. Dickman and R. B. Pender et al's No. 1 F. C. Davis, 1,000 ft. N and 1,770 ft. W of SE cor. of Sec. 275, Blk. 2, H.&T.C. Sur. ..... Shut down 3,750 ft.
Texas-Canadian's No. 1 Moore, 1,320 ft. from S and W Sec. 379, Blk. 97 ..... Location.

SUTTON COUNTY

Independent Oil & Gas Co.'s No. 1 Willson, Sec. 30, Blk. A, 1,650 ft. from N, 2,310 ft. from W ..... Location.
Independent & Sun Oil Co.'s No. 1 Allison, Sec. 39, Blk. A, 200 ft. from N and 1,000 ft. from W ..... Location.
Phillips Pet. Co.'s No. 1 A. G. Holman, 2,310 ft. S and 330 ft. W NE cor., Sec. 25, G.C.S.D.&N.G.R.R. Sur. ..... Fishing 6,635 ft.; making 1,500,000 ft. gas 6,635 ft.
L. G. Priest's No. 1 Allison, 1,320 ft. N and E of SW cor. Sec. 52, Blk. A, T.&P. Sur. ..... Set 15-in. casing 530 ft.; shut down 3,692 ft.

TAYLOR COUNTY

Dunnigan & Shell Pet. Corp.'s No. 1 Davidson, 2,811 ft. S and W of NE cor. S half of W. R. Willis Sur. No. 122 ..... Shut down 2,020 ft.
John B. Jameson's No. 1 Webb, 1,170 ft. S and W of NE cor. Sec. 46, Lunatic Asylum Land ..... Show oil 4,917 ft.; shut down 4,960 ft.

TERRELL COUNTY

Big Bend Oil Co.'s No. 1 Bassett, C NW Sec. 155, Blk. D, M.K.&T.R.R. Sur. ..... Underreaming 1,150 ft.; to shut off hole full of water.
Keck Pecos Trust Co.'s No. 1 Hamilton, C Sec. 6, Blk. D-7, E.L.R.R. Sur. ..... Drlg. 2,765 ft.
Mrs. J. B. McPhee's No. 1 Sam Belt, C Sec. 78, Blk. D-7, E.L.R.R. Sur. ..... Shut down 880 ft.
Milham Exploration Co.'s No. 1 Bassett, Sec. 76, Blk. Y, W. E. Robertson Sur. ..... Cem. 6⅝-in. casing 3,986 ft.; drlg. 5,475 ft.
Woodley & Jones' No. 1 Pankenham, C SE NW, Sec. 43, Blk. B-2, C.C.S.D.&N.G.R.R. Sur. ..... Shut down 625 ft.

TERRY COUNTY

Kingsland O. P. Co.'s No. 1 Brownfield, C NW SW SW Sec. 7, Blk. 1-A, E.L.R.R. Sur. ..... Fishing bailer 5,080 ft.

TOM GREEN COUNTY

Cannon et al's No. 1 Rust, 990 ft. S. 990 ft. W of NE cor. of Sec. 745 ..... Rig.
Fitzgerald & Taliaferro's No. 1 Bennett, C SW Sec. 1,628, E. H. Ringer ..... Drlg. 2,345 ft.
Fuhrman Pet. Co.'s No. 1 Wardlaw, 2,650 ft. from N and E of Sec. 6, Blk. 17, H.&T.C. ..... Location.

UPTON COUNTY

Cranfill & Reynolds' No. 1, 220 ft. each way from N line, Sec. 15, Blk. 5, H.&T.C. Sur. ..... Location.
Dixie Oil Co.'s No. 31 Burleson, 330 ft. from N and 660 ft. E. Sec. 2 ..... Shut down 325 ft.
Gulf Prod. Co.'s No. 2 Hughes, 150 ft. N and 255 ft. E of SW cor., Lease "B," W. Terr Sur. No. 4, A-806 ..... Location.

Humble Oil & Ref. Co.'s No. 12 Ricker, 5,008 ft. from NW, 150 ft. from NE line, Denton Sur. ..... Drlg. 2,121 ft.
Prairie Oil & Gas Co.'s No. 1 Quatters, 330 ft. from S and 1,980 ft. from W, C. C. Dewitt Sur. ..... Drlg. 3,095 ft.
T. P. Coal & Oil Co.'s No. 13-A Lane, 330 ft. from S, 660 ft. from E of No. 5-A ..... Drlg. 800 ft.

VAL VERDE COUNTY

Independent Operators' No. 1 Whitehead, SE SE, Sec. 30, Blk. 4, I.&G.N. Sur., elev. 1,175 ft. ..... Shut down 4,850 ft.
O. O. Owens, No. 1 Mills, Sec. 128, Blk. 1, I.&G.N. Sur., elev. 2,130 ft. ..... Gas sand 2,491-2,520 ft.; tested 125,700 ft. gas; reset 8-in. 2,511 ft.; total depth 4,210 ft.; rebuilding rig.
Phantom Oil Co.'s No. 1 Ingram, 1,320 ft. from S and W, Sec. 44, Blk. D-8, G.C.&S.F.R.R. Sur. ..... Rigging up.
Dyar Bros. et al's No. 1 Wilson, 6,830 ft. N NE cor., Sec. 1, T.&P. Sur., thence 1,680 ft. E, Sec. 115, Blk. E. G.C.&S.F. Sur. ..... Drlg. 3,594 ft.
Valvert Oil Corp's No. 1 Bassett, C NE, Sec. 47, Blk. Y.. Set 15½-in. casing 767 ft.; set 10-in. casing 1,510 ft.; shut down 4,009 ft.

WARD COUNTY

Alpine Oil & Gas Co.'s No. 1 Boogher, 1,980 ft. SE and NE, Sec. 11, Blk. 5, H.&T.C. ..... Top salt 760 ft.; cem. 8-in. casing 758 ft.; drlg. 1,490 ft., anhydrite.
Atlantic et al's No. 1 Dorr, 1,730 ft. S, 990 ft. W, Sec. 2, J. Howe ..... Spudding.
Barstow Oil & Gas Co.'s No. 1 Monroe, Sec. 50, Blk. 33 Spudded and shut down.
C. C. Dorr et al's No. 1 Costley, 1,722 ft. from NW, 990 ft. from NE line of Sec. 2, Jos. Howe Sur. ..... Spudded and shut down.
Cranfill & Reynolds' No. 1 Robeson, 220 ft. NW and NE Sec. 15, Blk. 5, H.&T.C. ..... Drlg. 719 ft., sand.
Continental Oil Co.'s No. 2 Sealey, 330 ft. S and W, Sec. 81, Blk. A, G.M.M.M.&A. Sur. ..... Top brown lime 2,280 ft.; cem. 8-in. casing 2,284 ft.; drlg. 2,690 ft.
Gulf Prod. Co.'s No. 2 Hutchins, 330 ft. N and E, Sec. 7, Blk. O ..... Top salt 1,240 ft.; top pay 2,529 ft.; 2,000,000 ft. gas; 125 bbls. oil 24 hrs. 3,059 ft.
Gulf Prod. Co.'s No. 6 O'Brien, 2,310 ft. from N, 330 ft. from E, Sec. 20, Blk. F, G.M.M.B.&A. Sur. ..... Top salt 1,076 ft.; 40,000,000 ft. gas; show oil 2,625-30 ft.; produced 200 bbls. 21 hrs. while cleaning out at 2,722 ft.
Gulf Prod. Co.'s No. 3 Wristen Bros., 220 ft. NE of SW and 220 ft. SE of NW Sec. 18, Blk. 5, H.&T.C. ..... Drlg. 510 ft., red rock.
L. C. Harrison et al's No. 1 Wristen, 990 ft. from S and W lines of Sec. 26, Blk. B-28 ..... Shut down 150 ft.
E. B. Lovelace et al's No. 1 Redman, 1,980 ft. NE of SW line and 1,980 ft. SE of NW line, Sec. 162, Blk. 34, H.&T.C.R.R. ..... Drlg. 820 ft.
Penn & Atlantic's No. 1 Pecos Mercantile Co., Sec. 16, Blk. 34 ..... Drlg. 2,453 ft.
Shipley et al's No. 1 Monroe, 330 ft. SE SW, Sec. 3, Blk. 1 ..... Shut down 517 ft. for casing.

WINKLER COUNTY

Atlantic Oil Prod. Co.'s No. 6 Hendricks, 330 ft. S, 2,310 ft. W of NE cor., Sec. 44, Blk. 26, School Land ..... Cementing 6⅝-in. casing 2,780 ft.
American Maracaibo Co.'s No. 2 Hendricks-B, 1,980 ft. N and 1,650 ft. E of SW cor., Sec. 28, Blk. B-5 ..... Top lime 2,599 ft.; top pay 2,731 ft.; 2,000 ft. oil; increase 2,875 ft.; show water 2,928-31 ft.; shot 140 qts. 2,715-40 ft.; cleaning out; 2,900 ft. oil in hole; shot again 40 qts. 2,715-40 ft.; no results 800 ft.; oil in hole.
V. T. Bolin's No. 2 Brown et al, 2,000 ft. S and W of NE, Sec. 4, Blk. B-5, Public School Land ..... Top salt 1,300 ft.; total depth 2,520 ft.; shut down 8-in. casing.
Cranfill & Pickrell's No. 2 Hutchins, 2,310 ft. S and W Sec. 47, Blk. 26 ..... Drlg. 2,670 ft., gray lime; show gas 2,280 ft.; increase 2,395 ft.; estimated 5,000,000 ft. gas.
Gulf Prod. Co.'s No. 2-B Lum Daugherty, 2,310 ft. from N and 1,320 ft. W, Sec. 22, Blk. 26, P.S.L. ..... Top lime 2,495 ft.; show oil 2,680-85 ft.; pay 2,698-2,700 ft.; flow 10 bbls. two heads.
Humble O. & R. Co.'s No. 1-D Hendricks, 330 ft. from S, 2,310 ft. from W of Sec. 41, Blk. 26 ..... Rigging up rotary.
Liner Drlg. Co.'s No. 1 Campbell, 330 ft. from N and E cor., Sec. 2, Blk. B-5 ..... Shut down 2,005 ft. for funds.
Continental Oil Co.'s No. 1 Morton-A, 330 ft. N and E of Sec. 16, Blk. B-12 ..... Total depth 2,998 ft.; shut down; top pay 2,990 ft.; hole full fluid, 500 ft. water.
Shell-Llano Oil Co.'s No. 7 Scarborough, 1,020 ft. from N and W, Sec. 2, Blk. 77 ..... Drlg. 3,087 ft.; made 78 bbls. 6 hrs. from pay 2,942-62 ft.
Skelly Oil Co.'s No. 5 Daugherty, 1,326 ft. W, 2,310 ft. S, Sec. 22, Blk. 26 ..... Location.
Southern Crude O. P. Co.'s No. 2 Hendricks T-89-L, 440 ft. from N and 1,320 ft. from W, Sec. 15, Blk. B-12 .. Shut down 2,800 ft.; top pay 2,793 ft.; flowing 144 bbls. pipe line oil per hour.
Southern Crude O. P. Co.'s No. 4 Hendricks T-90, 2,310 ft. S and E of Sec. 47, Blk. 26 ..... Top lime 2,242 ft.; total depth 2,404 ft.; 18,000,000 ft. gas 2,401-04 ft.; mixing mud to kill gas.

ACTIVE PLAY SEEN IN NORTH ARKANSAS

(Continued from Page 38)

operators are preparing for some deep oil tests in the northern part of the valley. This department has in preparation a report, 'Oil and Gas Possibilities of the Arkansas Paleozoic Area,' by Carey G. Croneis. To accompany this report detailed structure maps have been prepared of the Arkansas River Valley province to the north line of Township 12n. Mr. Croneis discusses each anticline in detail and gives specific recommendations as to the production possibilities and the section which would probably be penetrated on each structure. Maps for this report have been drawn and about four-fifths of the manuscript has been submitted to the printer. We hope to have it ready for distribution about the last of October.

"The new state geological map of Arkansas which has been prepared by this department on a 1:500,000 base is now on the press and we hope to have it ready for distribution within the next two or three weeks. In connection with the Arkansas Valley situation this map shows the northern limits of the Atoka formation across the northern portion of the Arkansas Valley and in addition shows the anticlinal axes which have been mapped by geologists of this department. This map will be useful, I believe, in giving geologists an understanding of both the regional and local structure and stratigraphy of the region.

Oil and Gas Possibilities

"The following is a brief summary of the oil and gas possibilities of the valley area as I see them. They may best be discussed, I believe, on the basis of (1) gas possibilities, and (2) oil possibilities:

"1. Evidently the best chances for gas wells lie in the Atoka formation, as this has been productive for many years in western Arkansas and produces all the gas which has been found in the Massard Prairie, Mansfield, Alma, Kibler and Williams and, lately, the Clarksville, Fields. Gas also may be found in the porous beds associated with the Pennsylvanian Morrow group underlying the Atoka and also with the Fayetteville shale, Moorefield shale and Chattanooga shale. The Independent Oil & Gas Co.'s No. 1 Banks & Teague, located in the NE NE Section 6-16-27, Madison County, recently reported 500,000 feet of gas from the contact between the Boone formation and the Chattanooga shale.

"2. The chances for discovering oil in North Arkansas must evidently be connected with the possibilities of the Pennsylvanian Morrow group and the Mississippian Fayetteville, Moorefield and Chattanooga shales, as no oil has been found in any quantity in the Atoka or coal measure beds, although these beds have been quite extensively drilled. Oil seeps have been discovered in all these above pre-Atoka shales of North Arkansas. Consequently, drilling in the north portion of the valley should, I believe, when the depths are not too great, test these shales and associated porous beds and should at least penetrate to the (Ordovician) St. Peter sandstone.

Small Chance Below St. Peter

"The chances below the St. Peter seem to be slight as the section beneath that horizon contains only a small portion of carbonaceous material and when penetrated in North Arkansas and Missouri has been barren. If wells are drilling well toward the center of the valley, drilling to the pre-Atoka beds would probably be either mechanically impossible or prohibitive as to cost on account of the thickness of the Atoka, but in the more northerly portion drilling depths to the pre-Atoka would be progressively less as one approached the northern limit of that formation and very roughly, north of the line of Township 8n, the depth to these beds does not seem excessive."

The new geological map of the territory covers an area extending from the north line of Township 2n to the north line of Township 12n, embracing approximately 9,000 square miles of what appears to be the most promising portion of northern and western Arkansas from an oil and gas standpoint. The structure map shows 77 anticlines, 61 synclines and 34 faults. Most of these structures follow a northeast-southwest trend and have no closure to the north. Most of the blocks assembled to date follow the same trend and are from 2 to 4 miles wide and 6 to 10 miles long. They were obtained for from 10 cents to 25 cents an acre 10-year commercial leases with 10-cent rentals, though in some parts of the area where leasing was done several years ago without development necessarily following the land owners have held out and obtained higher prices and included a drilling clause in their lease.

A recently completed base map of the area shows a total of 157 wells exclusive of those in the proven Clarksville and Fort Smith area fields, some of them drilled 20 years ago. They are scattered in 37 counties, Franklin, Yell and Johnson with 15, 13 and 16, respectively, being the most favored by the operators. Logs of some of these old wells are presented herewith.

Seepages Found

Three oil and gas seeps have been found in Madison County and four in Washington. Natives describe what may be three oil seeps in northwestern Cleburn County. Two miles southwest of Huntsville, Madison County, in the SW NW Section 8-16-26, is a sand full of oil with actual seepage when water conditions are right. In the SE NW Section 28-16-25 is a sand with oil seepage and in the vicinity of Kingston, especially in Section 15-16-24, occurs a number of concretions which give off liquid hydrocarbons when broken. In the NE NW Section 25-14-32, Washington County, is a sand with oil and a possible slow seepage in either the Wedington or Hale sandstone. In the S half of Section 4-13-29, near Winslow, is an asphalt bearing sand belonging to the lower part of the Winslow, but no seepage was observed. In Section 24-13-33 are sands, either the Wedington or Hale, which are saturated with oil and are known as "oil springs." In Section 2-16-30 concretionary masses and fossils in the Brentwood limestone frequently contain liquid hydrocarbons.

As the carbon ratios in the coals of the Arkansas Ozarks region are higher than in the ordinary producing fields, and some of the sands are relatively low in pore space, while others are spotted with respect to their porosity, most of the major companies have been inclined to condemn this region, though more recently they have been sending geologists into it for more detailed studies. Most of the prospecting has been done without reference to structure so that the completed wells cannot be regarded as fair tests of the area's oil and gas possibilities.

Nine Wells Under Way

At present nine wells are under way. Ark-La Pipe Line Co.'s (Arkansas Natural Gas Corp.) No. 2 Bynum, Section 12-10-24, Johnson County, dry and abandoned at 3,125 feet May 30 this year, now reaming to go deeper; No. 1 McFaddin, Section 15-19-21, Pope County, and No. 1 Hanna, Section 26-7-23, Logan County, cleaning out under 7-inch casing, total depth 3,165 feet. Blackwell Oil & Gas Co. is drilling at 5,250 feet on No. 1 Wyver, C SW SE Section 21-9-25, Johnson County. Phillips Petroleum Co. and F. S. Craver are rigging up to drill in the C of Section 11-14-28, Madison County. Wonder State Development Co. is rigging up on No. 1 Wilson, 599 feet west and 24 feet south NE cor. NE SW Section 21-2-11, Pulaski County, about 5 miles east of Little Rock.

Dr. J. S. Martin of Little Rock and associates have started drilling No. 1 Scanlan, in the NE cor. SE NW Section 5-9-13, Van Buren County. Lincoln Lease Holding Syndicate is shut down at 1,040 feet on No. 1 Lincoln townsite in Section 30-15-32, Washington County, and are reported to have had a show of the shallow gas developed several years ago northwest of Fayetteville. C. H. Willoughby's No. 1 Jones, Section 34-16-30, 2 miles southeast of Fayetteville, is shut down at 1,342 feet. He reported showings of gas in the shallow 400-500-foot horizon and again at around 900 feet. Letona Syndicate cased off several shows of gas, the last at 2,970-75 feet, and is drilling hard sandy shale at 3,300 feet.

Other Well Records

The log of this well is not available, but L. A. Hamacker, formerly an operator in the Kansas field, reports gas shows at 412-17 feet, 1,885-90 feet, 2,120-25 feet, 2,432-34 feet and 2,810-28 feet. He also advised that there was a rainbow of oil in the first sand at 412 feet. Salt water sands were logged at 1,810-20 feet, 1,825-55 feet, 1,948-60 feet. Independent Oil & Gas Co. recently completed a well in Madison County, 30 miles east of Fayetteville, No. 1 Banks, in the NE cor. Section 6-16-27, gauging 467,000 feet of gas at 37 pounds from 470 feet. This well was drilled to 2,504 feet, where it went into granite and was abandoned at 2,515 feet.

Seven or eight years ago Invincible Oil Co. (Louisiana Oil Refining Corp.) drilled No. 1 Gravemire in the NW of Section 29-9-6, White County, to 3,140 feet without getting a show of anything, and 15 or 16 years ago Henry Oil Co. (Cudahy) junked No. 1 Lay, Section 14-7-7, White County, a mile southeast of Searcy, at 1,960 feet in sand that showed a trace of oil. About the same time, or perhaps more recently, the exact date not being obtainable, C. N. Faubel drilled No. 1 Choate in the NE of Section 7-6-9, White County, to 2,804 feet, but abandoned it on account of crooked hole. He is reported to have had gas at 1,800 feet with a show of oil. Gold Creek Oil & Gas Co. was said to have had two or three shows of oil and enough gas to blow the mud out of the hole in No. 1 Stermer, Section 17-4-13, Faulkner County, but the well has been inactive and is understood to have been abandoned, total depth 3,782 feet.

Acreage Leased

The following table gives the names of companies and individuals who have ob-

tained leases in this territory with the approximate locations of the blocks:

Name of company—	Approximate amount of acreage	Approximate center of block
Carter & Green	5,000	16-12-8
Carter & Green	30,000	31-11-9
Carter & Green		
Carter & Green	4,000	28-12-12
Munn Bros. & Chester Oil Co.	20,000	17- 9-12
Chester Oil Co.	7,500	31-11-12
Red Bank Oil Co.	6,000	21- 9-9
Rubana Oil Co.	5,000	34- 9-10
Sam Hays	10,000	31-12-9
Sam Hays	25,000	18-11-10
Letona Syndicate	7,000	35- 9-8
Sam Hays	3,000	24-10-11
Arkansas Nat. Gas Corp.	5,000	10-16-15
Chester Oil Co.	13,000	6- 9-14
Chester Oil Co.		
D. W. Johnson	8,000	7- 7-16
D. W. Johnson	6,000	4- 9-17
Munn Bros.	5,000	20- 8-16
Red Bank Oil Co.	3,500	9- 8-15
Wonder State Dev. Co.	5,000	19- 6-16
Ownership unidentified	5,000	30- 9-14
Munn Bros.	14,000	17- 8-11
Root Refineries, Inc.	13,000	8-17-13
Sam Hays	4,000	15-11-7
Dr. J. S. Martin et al (Dr. Martin also connected with Wonder State Dev. Co.)	40,000	27-13-7
Central States Power & Light Co.	11,000	14- 9-22
D. W. Johnson	6,000	25-10-23
D. W. Johnson	2,000	33-10-24
D. W. Johnson	8,000	25-11-24
Red Bank Oil Co.	4,000	27-10-22
Independent O. & G. Co.	10,000	5-15-25
Independent O. & G. Co.	12,000	6-16-27
Independent O. & G. Co.		SE-16-26
Phillips Pet. Co. and Carter & Green	22,000	3-14-28
Scott Taylor	7,500	7-16-25
Ownership unidentified	10,000	3-14-26
D. W. Johnson	5,000	10-10-21
Munn Bros.	7,000	1- 9-19
Wonder State Dev. Co.	10,000	21- 2-11
Gold Creek Oil Co.	30,000	17- 4-13
Dr. J. S. Martin	11,000	7- 9-15
Carter & Green	15,000	23-14-14
Ownership unidentified (Blocking)		21- 7-31
Chester Oil Co.	12,000	5-10-14
H. V. Doherty	6,000	12-12-17
Sam Hays	5,000	9-11-13
Sam Hays	20,000	7-11-14
Sam Hays	2,500	12-12-13
Munn Bros.	7,500	34- 9-13
Munn Bros.	10,000	23-10-13
Roy Reddman (Blocking)		32-12-16
Wonder State Dev. Co.	6,000	19-10-16
Lincoln Lease Holding Syndicate	30,000	30-15-32
Adamson Drilling Co.		
C. H. Willoughby		
Carver & Green	3,000	
Taylor & Trumbo	5,000	
The Texas Company (Min. & Fee)	8,000	
Red Bank Oil Co.		
Ownership unidentified		
Red Bank Oil Co.		
Red Bank Oil Co.		
Ownership unidentified		
Boston interests		
Donald Trumbo	1,000	3-12-26
D. W. Johnson	5,600	3-10-27
Red Bank Oil Co.		
Blackwell O. & G. Co.		
Donald Trumbo	1,200	
D. W. Johnson	5,660	
Anderson & Miller	13,000	11- 9-8
D. W. Johnson	12,000	
D. W. Johnson	8,000	23- 6-10
D. W. Johnson	6,000	6- 7-7
D. W. Johnson	10,000	9-10-6
Munn Bros.	12,000	10- 9-5
Arkansas Nat. Gas Corp.	22,000	22- 7-23
Arkansas Nat. Gas Corp.	10,000	25- 8-24
Arkansas Nat. Gas Corp.	5,000	15- 7-27
Arkansas Nat. Gas Corp.	15,000	9- 8-19
Arkansas Nat Gas. Corp.	12,000	8- 8-21
Arkansas Nat. Gas Corp.		
Arkansas Nat. Gas Corp.	6,000	15- 9-21
W. F. Harris	10,000	10- 4-4
Carver & Green		
Carver & Green		
Cosden O. & R. Co.		
Cosden O. & R. Co.		
Cosden O. & R. Co.		
Cosden O. & R. Co.		
Cosden O. & R. Co.		
Cosden O. & R. Co.		
Cosden O. & R. Co.	11,000	7- 8-13

DETERMINATION OF PRODUCTION COSTS

(Continued from Page 38)

cents should be reinvested in new property in order to maintain the company's production.

Administration and General Expense

Administrative and general expense take in such items as the cost of running the main office, including executive salaries and expenses, bookkeeping, general taxes, interest charges on borrowed capital, etc. The endeavor is to include only items which are not chargeable to any particular lease, but which are a part of maintaining the general business organization if the company. Assuming that the company is in no other business than producing oil, all expenses must be recouped from the sale of oil; therefore, it is customary to allocate the general and administrative expenses to production by one of several methods. The most common method is to make a proportionate charge each month to each barrel of oil produced; thus, if the general and administrative expense for one month were $10,000 and the production 100,000 bbls., a charge of 10 cents a barrel would be made. This is an arbitrary method, for one small property might actually require more attention; and, therefore, incur more general expense per barrel than a property with several times its production, but it is impractical to draw fine distinctions, and it is better to assume that each barrel of oil produced requires as much attention from the executive department as any other barrel.

Lifting Expense

Under lifting expenses are included all the expenses which can be directly charged to each lease. These include salaries of pumpers, roustabouts, the material used on the lease, cost of fuel, etc., and usually a proportionate cost of the district superintendent's salary or other items incurred in the field, which can be directly allocated to the properties. Lifting expense begins when the well has been completed and put on production and is continued until the well has been abandoned.

Lifting expense can be detailed to the extent and in such manner as local conditions justify. It is always advisable to segregate labor from costs of materials, and again to segregate the direct pumping expense from maintenance, vacuum plant, and other expenses. These main items can be again segregated to whatever degree will give useful information. The purpose is to use the accounts as a means of showing what different conditions, different materials, different men, or different methods of operation may accomplish for increasing or decreasing the expense of producing the oil. If this is intelligently done, it will show what changes are desirable and point out how to make further improvements.

The purpose of detailed cost accounting being to measure the value of different ways of doing the same thing, it is important to segregate from these figures items which are outside the control of the men held responsible for the operation; for example, the gross production tax is beyond the power of change of any one in a company and changes with the price of oil. To throw this item in with other items such as the labor cost, cost of materials on the property, would be misleading. It would appear higher on the property with the highest grade of oil and during periods when the price of oil was up and would thus detract from the value of accounting as a measure of efficiency. In the same way, the greatest of care should be taken that the items of cost be segregated in such manner that they can be applied against the individuals, the processes, or materials that are responsible for the expense. For example, the purchase of a property is usually done by one department, development by another, and production by a third department. It would obviously be unfair and misleading if the production department were held responsible for the mistakes of the other two departments.

Production Expense

In analyzing production expense, care should always be taken to discriminate between arbitrary allocation of expense and direct expense; for example, a property may show in the red after all charges have been made against it; yet it may pay the company to continue to produce it. If the oil sells for $1.50 and the lifting expense is $1, the depreciation and depletion charge 65 cents, and the general and administrative charge 10 cents, the books will show a loss of 25 cents a barrel. Yet if the lease were abandoned the company's total revenue would be reduced by 50 cents a barrel; because, abandoning the property probably would not lessen the general and administrative expense at all, and the depreciation and depletion expense cannot be recouped in any other way. The point may be illustrated by assuming that a property was purchased and was then found not to have enough oil to pay out its investment. It would of course be best to produce the property as long as it was paying more than lifting expense in order to get back as much of the investment as possible and to reduce the total loss.

But another element enters into the question whether or not a lease pays to operate. The property may be paying a small return over and above the actual lifting expense, but on the other hand this return may not equal the actual deterioration of the physical equipment. Suppose a lease had physical equipment which could be salvaged and leave a net value to the company of $100,000, whereas each year it remained in the ground it would lose in value $10,000 through deterioration. Assume also that the property was selling only $5,000 more in oil than it incurred in expense. In such case, it would pay to abandon the lease, for at the end of the year the remaining salvage together with the profits for the year's production would only be $95,000, thus showing a net loss of $5,000. Moreover, there would be a loss of interest, for if the company had abandoned the lease and invested the money from salvage, it would have earned $6,000 in interest at the usual rate. The total loss would be $11,000 yearly. It is thus clear that expenses should be kept and analyzed for each property, in order to determine whether it would pay to produce, sell, or abandon the property.

Items of Actual Expense

It is often quite difficult to determine what is the actual expense. This is well illustrated by recent experience in producing by gas lift at Seminole, where, after more than a year's trial, there were still wide differences of opinion as to what it was actually costing to lift the oil in this manner. This uncertainty was caused by a number of factors. One of the most important was the charge to be made against the compressor plant. A compressor plant would be installed at a large expense, operated a year and then the gas lift would be discontinued. The machinery was still in excellent condition, but the cost of installing the machinery would have to be charged off and the value of the machinery to the company might be an uncertainty. In some instances the plant could be used for other purposes without moving. In other instances a company might have immediate use for the machinery at another place, and in still other instances the machinery would have to be stored in the warehouse or sacrificed on a low market.

It thus seems that the real cost of lifting the oil at Seminole can not be known until flowing the wells is over and in some instances not until disposition has finally been made of all the equipment. There were also incidental and direct expenses, many of them very difficult to measure. One such intangible item was the effect of the gas lift on the price of oil. There can be no reasonable doubt but that the uncontrolled use of the gas lift in the Seminole Field hastened the present period of overproduction, thus causing a severe drop in the price of oil. Assuming that the direct expense of lifting the oil was decreased by 10 cents a barrel, whereas the market price of the oil was decreased 50 cents, it would appear that the companies suffered a loss of 40 cents a barrel by the use of the gas lift, if these assumptions be correct, yet a conclusion cannot be reached from these facts alone for still other factors had to be considered, of which space does not permit discussion.

Distribution of Expense

Usually lifting expense is figured as the expense per net barrel, but sometimes the unit of expense is figured as the cost per well per month. Both are useful for comparative purposes, but in as much as profits are based upon the sale of oil, expenses should ordinarily be computed upon that basis.

In order to judge expenses intelligently, an understanding should be had of the relationship between expense and the size of the well. It is commonly known that the lifting expense per barrel is smallest for the larger wells and increases as the wells get smaller, until it no longer pays to operate them. On the other hand, the expense per well is most for the larger wells and becomes smaller as its productiveness decreases. Analysis of many properties shows a systematic relationship between expenses and size of well for the average property. This is shown by the tabulation below:

Daily production bbls.	Lifting expense per bbl.	Lifting expense per well day
500	$ .03	$15.00
100	.13	13.00
50	.23	11.50
10	.63	6.30
5	.95	4.75
.5	1.70	.85

The above figures approximate average lifting costs per gross barrel for the Mid-Continent Field for 1923, which doubtless have been since reduced considerably, but the difference in expense is still relatively true. It is meaningless to compare expenses between wells of widely different output.

Of course there are wide differences between wells of the same output due partly to natural conditions; such as, depth of wells, character of oil, presence or absence of water, etc., and partly to the skill of the operator. The same records show a minimum of 17½ cents, an average of 63 cents and a maximum of $1.25 for the lifting expenses for properties averaging 10 bbls. gross per well daily. The producer should be interested to determine whether such variation is due to avoidable or unavoidable conditions. If the avoidable, steps should be taken to improve conditions and if unavoidable, a lesson can be learned as to what kind of properties not to buy. This relation permits a forecast of future expense for a property for in general a high expense property will continue proportionately high throughout its life for there is the same percentage variation for wells of all sizes as for the 10-bbl. well given above.

It is quite apparent that the determination of production costs is not always a simple thing and that it demands a high order of intelligence to set up a detailed cost accounting system, to analyze it, and to draw reliable conclusions. It is, however, one of the most important things in the oil business for it is the yardstick by which progress and profits are measured.

CRUDE OIL STOCKS INCREASED IN JULY

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large company than by a small operator. The latter is in close personal touch with all operations and he does not conduct his business on a scale extensive enough to gain advantage from the refinements of accounting. Also much depends upon the ability of those analyzing and interpreting the facts elicited by the cost accounting. This requires a high order of ability to avoid erroneous conclusions and to get the most out of the facts. It is a mistake to think that the figures will interpret themselves and unless the company provides a competent analyst it is better off without much detail.

It is obvious that the amount and kind of detail needed in cost accounting depends upon the needs of each company and often upon special needs for specific information, but there is a minimum amount that should be kept under all circumstances for intelligent operation of a property.

Cost and Expense Defined

Some confusion exists between the terms "cost" and "expense." These have been used interchangeably but the tendency is to consider that anything that can be capitalized is a "cost" and anything that is to be charged against current operations is an expense. Thus the purchase price and development of a property is cost, whereas the lifting of the oil involves expense. But as stated before, it is impractical to make an exact division between the two and it is necessary to assign many items arbitrarily to one or the other. Eventually both must be deducted from earnings and so "costs"

are transferred into expenses through depreciation and depletion charges.

Depletion applies to exhaustion of the oil and gas, of which there are limited amounts under each property, and when they are gone the property no longer has a value for oil or gas producing purposes. Thus the earnings from the property must not only pay dividends on the investment but must pay back the investment itself. Depreciation applies to the physical equipment on the property including the casing, pumping equipment, tanks, vacuum plants, etc. This equipment loses value during the life of the lease and when the property is abandoned, the salvage is usually worth but a small fraction of the original cost. The difference must be paid back from earnings.

The principle that the value of the property decreases as the oil is extracted has, of course, always been recognized. It has in times past been taken into account by the "pay out method." All costs and expenses were put down in one column and all income in the other, and the operator considered he had made nothing until all his investment had been returned and total income exceeded total outgo.

This pay out system was an ultra conservative method that still is very useful, but it is not satisfactory for modern bookkeeping, which endeavors to charge off the investments and development costs of a property by allocating a proportionate amount to each barrel of oil sold. The method is to estimate how many barrels of oil will be produced and then charge off a proportionate part of the invested capital to each barrel. Tangibles, that is, casing and other materials, are charged through depreciation and intangibles, such as, cost of lease, labor, cost of drilling wells, are charged through depletion. For example, if the intangibles were $100,000 and tangibles, (less expected salvage) were $50,000, and the expected recovery 300,000 bbls., then the depletion charge would be 33⅓ cents against each barrel produced and the depreciation charges 16⅔ cents per barrel.

If the estimates of future production proved to be exactly right, a total of $150,000 would be shown in the depreciation and depletion accounts when the property was exhausted but as future production cannot be estimated exactly it is customary to make the charges somewhat higher than appears necessary, as a precaution against errors.

Correctly applied this manner of amortizing the capital charges permits a correct picture at all times of whether a profit or a loss is being sustained. The depreciation and depletion charges should not be considered as profits but as return of capital. Thus in the foregoing case if oil is selling for $1.50 a barrel, and operating expenses are 50 cents, there would be an apparent return over expenses of $1 a barrel, but of this only 50 cents could be considered as profit, the other 50 cents should be considered as capital returned, and if the company desires to remain in the business, this 50 000 bbls. of crude oil, which includes some California fuel oil, was added to storage. The demand for California crude was not as great in July as in June and this fact as well as increased production was responsible for the accumulation.

Refinery Products

Turning to the refinery production, the July report of the Government shows the same general trend that has been apparent for several months.

The demand for gasoline based on refinery shipments continues to show a large increase over the same period last year. The domestic demand in July totaled 36,860,000 bbls. with exports of 6,040,000 bbls., resulting in the largest total demand in the history of the refining industry. These totals compare with a domestic demand of 32,527,000 bbls. in July of last year with exports totaling 5,168,000 bbls.

Due to the heavy demand stocks were reduced approximately 4,000,000 bbls. This is a normal decrease for July but due to the accumulations earlier in the year stocks on July 31 were approximately 25 per cent greater than on the same date last year. Stocks on July 31, 1929, were over a million barrels less than on the same date in 1927, a year in which gasoline stocks were excessive throughout the entire year.

Refinery operations for the first seven months show an increase of 51,683,000 bbls., or 10 per cent in the quantity of crude oil run to stills. This is an abnormal increase in the quantity of crude oil required by refiners. With this 10 per cent increase in quantity of raw materials the refiners through increased yields were able to obtain an increase of 17.5 per cent in gasoline production. This increase in domestic production with an increase of 77 per cent in imports resulted in an increased total supply of 18.3 per cent. This exceeded an increase of 14.4 per cent in total demand so that a total of 4,814,000 bbls. of gasoline were added to storage.

Refinery Imports

As has been pointed out in previous monthly summaries, imports of gasoline, fuel oil and gas oil and petroleum wax are showing very large increases so far this year. They are still of little consequence in the total supply. These imports are coming from new refineries located in South American fields. It has been pointed out that while the building of these plants may reduce the quantity of crude oil imported into the United States this decrease may be more than offset by increases in imports of refined products.

Kerosene

Kerosene and lubricating oils are maintaining a healthy relationship between supply and demand although the total demand for kerosene the first seven months of this year has been less than the same period last year due to a slump in exports. A 2.8 per cent decrease in total demand however has been more than offset with a decrease of 5.5 per cent in total supply. Refinery yields of kerosene continue to show a steady decline and this fact prevents large accumulations which otherwise would be inevitable due to the yearly increase in crude oil runs to stills.

The total supply of lubricating oils for the first seven months of this year was also slightly less than the same period last year with an increase of 2.8 per cent in demand. In regard to demand a decrease of 1.8 per cent in exports was offset with an increase of 5.2 per cent in domestic demand.

Fuel Oil and Gas Oil

Data on fuel oil and gas oil demand are estimated and include some California heavy crude oil which is not segregated from the refinery fuel oil. Based on these estimates the supply of fuel oil and gas oil continues to exceed the demand by a wide margin. Since the first of the year 10,820,000 bbls. of fuel oil and gas oil were added to storage and on July 31 had reached the tremendous total of 145,721,000 bbls.

Petroleum Wax

Petroleum wax was again added to storage in July but the increase of 2,500,000 pounds is substantially less than the increases of previous months this year. Production was decreased in July and the domestic demand increased. Most manufacturers of wax believe that the turning point in the market has been reached and the future will see a gradual improvement in prices. The stocks on July 31 were 126 per cent greater than on the same date in 1928.

Total All Oils

On July 31 total stocks of all oils were 54,694,000 bbls. greater than on the same date last year. Practically all of this excess oil has been added to storage since the first of the year.

OKLAHOMA CITY FIELD IS ORDERED SHUT IN

(Continued from Page 37)

it as his opinion that if unrestrained the field would be producing between 300,000 and 500,000 bbls. a day before the end of the year.

The first day's shut-down resulted in a drop in production from 66,137 bbls. to 10,785 bbls. The one well of large production, the Shell Petroleum Corp.'s No. 1 Petty, had the rotary tools in the hole, and could not be shut in.

The guage on the first day of the shut-in period was as follows:

Company—	Bbls.
Colene No. 1 Olds	Shut in
Cromwell No. 1 Trosper	156
I. T. I. O. No. 2 A. Bodine	640
I. T. I. O. No. 1 S. Bodine	5
I. T. I. O. No. 1 Button	Shut in
I. T. I. O. No. 1 Fuzzell	443
I. T. I. O. No. 1 Henning	37
I. T. I. O. No. 1 Watters	Shut in
I. T. I. O. No. 1 Fee	161
I. T. I. O. No. 1 Johnson	Shut in
Mid-Kansas No. 1 Fortson	330
Mid-Kansas No. 2 Fortson	172
Prairie No. 1 Hiddleston	Shut in
Shell No. 1 Petty	8,151
Sinclair No. 1 Stamper	155
Wirt Franklin No. 2 Lowery	535
Total	10.785
Previous day	66.137
Decrease	55.352

The Oklahoma Pipe Line Co. has under construction an 8-inch line from Cushing to the Oklahoma City Field and expects it to be completed by the middle of October. The Sinclair Pipe Line Co. has surveyed from Prayson to the new field, about 35 miles distant, for an 8-inch line. The contract has been signed, the pipe ordered and the work is getting under way. It is expected to be completed and ready for use in the early part of November.

Cromwell-Franklin interests have ordered five 80,000-bbl. tanks to be delivered at once and construction work is expected to be started by next week.

New Pool Opened

Another new pool is looming 11 miles east of the capital city where a wildcat well is being drilled by the Mid-Kansas Oil & Gas Co. and the Ramsey Petroleum Co. It is No. 1 Trosper, NE cor. NW Section 19-12-1w, Oklahoma County. Located in the center of a 10,600-acre block controlled by the two companies, which will restrict the drilling to the necessary requirements as they own the leases within 1½ miles around the discovery well. It was flowing by heads every hour from a sand that is 100 feet below the Oswego, which some geologists are calling the Prue sand, and made 660 bbls. in 24 hours at 6,160-65 feet after being plugged back from 6,904 feet where a fishing job prevented deeper drilling. The total depth on Saturday was 6,250 feet. There is also about 2,000,000 feet of gas. No water is showing. This was the gauge of September 13 at 7 a. m.

HE'S NOT AFRAID TO DRILL 'EM DEEP

(Continued from Page 40)

run tubing when necessary, Mr. Yount always does this, not only for protection of the hole, as stated, but also because, in his opinion, a well, although it might flow without tubing, will be much longer lived if its pressure is conserved through the use of tubing.

Some idea of the success of the Yount Lee Oil Co. under the direction of Mr. Yount is gained from the fact that from a small holding of only 2 acres under lease at Sour Lake in 1913 it has grown until now it is the second largest producer of oil in the State of Texas. In addition to its production holdings, the company has built up the largest independent exclusive crude tank farms in Texas at Beaumont and has one of the most modern and fastest loading terminals in the country.

The story of the Yount Lee Oil Co. is the story of Mr. Yount. From the time, in January, 1901, that he, as a youth only 21 years old, stood and watched America's greatest gusher, No. 1 Lucas, the discovery well of Spindletop, Mr. Yount's destiny has been linked with the development of the Gulf Coast oil fields, and it was out of the inspiration of that well that he determined on oil as his career and out of which has sprung the company which bears Mr. Yount's name.

Always a Mechanic

Mr. Yount was born in Monticello, Ark., in 1880 and early in life displayed an inclination toward the mechanical, a bent which probably has played an important part in the successful operations which he has undertaken. As a youth, Mr. Yount started to work in the oil fields at Spindletop, and with his brother tried to get in the oil business for himself. The first venture met with failure and the crash, through an unforeseen legality, put Mr. Yount in debt and sent him back to the rice fields, from whence he had come, as engineer of irrigating plants, threshing rice and drilling water wells.

The oil, however, was in his blood by now and as soon as he recouped he was back at it again, going first to Sour Lake, where in 1908 he made his first "strike" in a small way. From this on Mr. Yount's way has been one of steadily growing success. In the latter part of 1913 he was joined in his operations by T. F. Rothwell and J. H. Phelan, organizing the Yount-Rothwell Oil Co., under which name operations were carried on until January, 1915, when the company was reorganized as the Yount Lee Oil Co., with a capitalization of $50.000.

The company was very successful and produced large quantities of oil from late 1913 to 1920 at Sour Lake and then commenced drilling at Hull, prospecting in the flank sands, where it got its first really important production in 1922. After this, the company increased its capitalization to $500,000 and a short time later to $2,000,000. From this on the company began to acquire holdings quite extensively over the Gulf Coast and moved headquarters from Sour Lake to Beaumont, where operations were started at Spindletop in September, 1925.

All operators know the story of how, the following month, Yount Lee Oil Co.'s No. 2 McFaddin, south of the old cap rock area of Spindletop, was brought in, opening a new era of development for that field, providing an incentive for a new wave of drilling activity around the flanks of the coastal domes in search of deep production, and fulfilling a vision which Mr. Yount always had harbored since his early days in the boom Spindletop.

PIONEER DRILLER ALWAYS JUST MISSED BIG PAY

(Continued from Page 40)

cation and prepared to develop it when reports came of better prospects further on. Proceeding to Sour Lake they looked things over and got some production from a few shallow wells making a low grade oil and started an axle grease factory producing about a half-carload daily which they hauled several miles over what passed as roads to the nearest shipping point.

At Spindletop

They made some money from this venture, a little more than bare ham and eggs, but not enough to retire on—had they or anyone else been possessed of prophetic vision realized what their fortune was to be they might have retired from wildcatting for the remainder of their days, for their fate turned out to be always to just miss making the big clean-up. As the case has been with the great majority of pioneers in whatever field they worked, those who came after were the ones who realized handsomely. At any rate, their attention was directed to Beaumont's Spindletop where they soon had a cable tool rig of sorts at work and managed to get down 550 feet when they ran into quicksand which they could not get through with the equipment they had—plus a partner, a grub-staker, in West Virginia, who ordered them to "abandon the attempt and go back to Sour Lake where they had a meal ticket." They did, and it was a specimen of what fate had in store for them that a few years later they went back to Spindletop and watched a well a few yards from their lease line shoot 75,000 bbls. daily over the crown block.

They were attracted to what turned out to be the Jennings Field in what is now Jeff Davis, but then was in Calasieu Parish, the first of the Louisiana coastal fields. If they were not the first to have a derrick up they were on their way when their predecessor completed his and drilled two or three dry

holes while their neighbors brought in rich producers.

"Back to Sour Lake"

By this time it was again a case of "back to Sour Lake and the meal ticket," where the experience was repeated, gushers going over the top all around their land from a deeper horizon than they had been able to reach and it was while they were arranging to drill that other claimants to the property they had bought and were producing, appeared. Taking the view that a good compromise is better than a long suit, they settled for a relatively small amount, I think it was around $30,000 or $40,000, may be more, they moved off. That lease produced many millions of barrels of oil.

The activity around Spindletop, Sour Lake, Jennings and that general territory was what started inquiry into the possibilities of the Shreveport district. Ira G. Hedrick, then chief engineer of the Kansas City Southern Railroad, which traverses, and has earned many millions in oil freight revenues from, this territory to the Gulf terminal came to DeSoto Parish in the summer of 1901, leased a large tract of land and in December of that year shipped in the first drilling rig, a crude combination cable tool and rotary affair. It was unloaded at DeSoto spur and set up on the farm of Joe Dean, a negro, where, at 987 feet it struck gas in commercial quantities, though the hole was subsequently lost through no fault of the rig or the drillers—there wasn't as must experience in handling gas wells available in this territory then as there is now, nor the equipment.

First Wildcat in Caddo

This encouraged considerable lease activity all through DeSoto and Caddo Parishes, but it was not until 1904 that Cameron, manager of a cotton compress or oil mill, at Ruston, 60 miles east of Shreveport, succeeded in getting operators sufficiently interested in the prospects to come here to give the country a "once over." The operators happened to be the Savage brothers, who, somewhere along the line, have become associated with a Doctor Morical. Also, D. C. Richardson, an Oklahoma City lumberman, who had come to Shreveport a few years before to engage in that business, had become interested in oil and gas possibilities of this section and aided Cameron in his efforts. Richardson is reported to have been the first man to lease land in Caddo for oil and gas development. At any rate whoever is responsible for bringing them here, Sam Fullilove, who is still operating here but was at the time of this story, 1904, a young lawyer just out of school, full of pep and president of Shreveport's Progressive League, or whatever the "Boosters' Club" of that day was named, also is credited with helping the idea into maturity, Savage Brothers and Morical moved their equipment here and started the first wildcat in Caddo on the Hill, or Lee, land just north of where the Annanias (fishing and hunting) Clubhouse on the north shore of Caddo Lake stands.

They leased a few thousand acres, sold some of it to help finance the well and lost the remainder except about 1,000 acres in litigation, and set about drilling. There was none of the blaring publicity that characterised much of the development of Caddo that followed in later years, attached to their operations for the reason principally that local newspapers and a good many citizens didn't know a crown block from a "J" tool nor what it was all about. They kept grinding away day after day and finally reached 2,200 feet, where the effort was abandoned with only a little show of gas as a reward.

Nothing daunted they started a second hole which went to about the same depth with like results and a third attempt followed. They got a well of commercial proportions but their "jinx" was still riding them for a short time after completion it caught fire and was lost. Here, then, was the discovery of the Caddo Field, but the discoverers benefited very little from their pioneering, for the first successfully completed commercial well was drilled by the Producers Oil Co., the next year, the company taking over a well begun by Brown Brothers of Beaumont, one of whom C. W. later became Al Savage's son-in-law.

No doubt all these fields in which Al Savage pioneered would have been discovered by others later on, but what his friends like to remember is that his work led to the discoveries when they were made; not for the wealth that followed his activities, most of which he was denied a share, but as a clean cut, honest minded man imbued with a purpose to do something of benefit to his fellows, qualities that attracted them on acquaintance and held them to him.

His brother, Jesse, who shared with him the ups and downs of his experiences here and in Texas, preceded him in death. Mrs. Savage also has been dead for some time. Surviving him are his five children, Mrs. R. S. Terry and Mrs. C. W. Brown of Shreveport; Mrs. A. A. Snell of Houston, and Cam and Lee Savage of Charleston, W. Va.

OKLAHOMA FIELDS

(Continued from Page 80)

Company, farm—	Location	Wells	Prod.
Barnsdall:			
Johnson	22-10-6	1	28
Jackson	5- 9-6	2	26
Burke-Greis:			
Varnum	32-10-6	1	827
Carter:			
Davis	4- 9-6	2	170
Amerada	11- 9-6	1	21
Carter et al:			
Frazier	3- 9-6	5	516
I. T. I. O.	11- 9-6	1	326
Kiker	2- 9-6	1	16
Skiff	10- 9-6	1	47
Mandler	3- 9-6	2	5
Slick	11- 9-6	2	799
Scott	26-10-6	1	10
Stewart	10- 9-6	1	321
Strothers	11- 9-6	2	1,120
Mayhue	11- 9-6	1	1,504
Gypsy:			
Cudjo	4- 9-6	3	503
Nevins	32-10-6	3	581
Magnolia:			
Varnum	32-10-6	3	489
W. F. Varnum	5- 9-6	1	43
Mid-Continent:			
Grayson	34-10-6	4	23
Saloche	33-10-6	5	380
Mid-Continent & Homaokla:			
Nevins	32-10-6	4	1,080
Papoose:			
Marks	32-10-6	1	355
Pine:			
Luis	4- 9-6	1	13
Prairie:			
Cannon	33-10-6	1	1
J. Carter	10- 9-6	1	3
Houch	33-10-6	1	3
Hurford	33-10-6	1	30
Kincaid	33-10-6	2	56
Wimer	22-10-6	1	10
Pure:			
Aldridge	3- 9-6	4	627
Shell:			
Strothers	3- 9-6	4	185
Crump	32-10-6	2	25
Sinclair:			
Polly	3- 9-6	4	1,406
Superior:			
Varnum	4- 9-6	1	20
Texas:			
Fleet	4- 9-6	1	17
Twin States:			
Varnum	4- 9-6	2	125
Wilcox:			
Chupco	4- 9-6	7	203
Total		82	12,183

EAST CENTRAL TEXAS

Daily average production of the East Central Texas district for the week ending September 14 was:

Boggy Creek	2,838
Cedar Creek	90
Currie	413
Hill County	20
Mexia	5,203
Minerva	640
Nigger Creek	325
Powell	7,481
Richland	325
Thrall	30
Wortham	965
Total	18,330
Week ending Sept. 7	18,338
Decrease	8

TEXAS PANHANDLE

(Continued from Page 74)

No. 1 Barrett had an oil show at 575-91 feet, was plugged back to 590 feet and had an initial production of 20 bbls. oil.

Wichita County

Continental Oil Co.'s No. 15-E Burnett had an oil show at 1,636-41 feet and an initial production of 18 bbls. oil. Golding & Cochran's No. 11 Waggoner Brothers had an initial production of 30 bbls. at 1,283-97½ feet. John O'Neal's No. 33 Rio Bravo had an oil show at 1,547-62 feet and an initial production of 92 bbls. Panhandle Refining Co.'s No. 8 Burnett had an initial production of 67 bbls. at 1,421-28½ feet. Production Drilling Co.'s No. 1 Allen-Kemp had an oil show at 1,745-59 feet and an initial production of 30 bbls. The Texas Company's No. 362 Waggoner had an initial production of 30 bbls. oil at 1,720-37 feet. American Refining Properties' No. 7 Lillis Morgan had an initial production of 30 bbls. at 1,547-69 feet and at 1,583-99 feet.

Wilbarger County

Easter Oil Co.'s No. 6 Waggoner had an initial production of 100 bbls. at 2,366-91 feet. Empire Gas & Fuel Co.'s No. 10 Waggoner had an initial production of 145 bbls. at 1,862 feet. Its No. 11 Waggoner had an oil show at 2,344-54 feet, shot with 15 quarts at 2,395-2,472 feet and had an initial production of 70 bbls. Grayback Developvent Co.'s No. 2 Smith-Waggoner had an initial production of 265 bbls. at 2,641-72 feet. Lewis Production Co.'s No. 8 Waggoner had an initial production of 175 bbls. after having been shot with 45 quarts at 2,365-99 feet. McAneny and others' No. 1 Waggoner was dry and abandoned at 1,705 feet. Staley Wynne & Co.'s No. 1 Waggoner was dry and abandoned at 2,000 feet. Vandeventer and others' No. 1 Shipley was dry and abandoned at 2,260 feet.

RANGER DISTRICT
Week ending September 14

Brown County

Cross Cut Corp.'s No. 12 Miller was dry and abandoned at 1,150 feet. Phil French's No. 2 Belvin was drilled to a total depth of 1,316½ feet, had an oil show at 1,297 feet and an initial production of 350 bbls. Prairie Oil & Gas Co.'s No. 3 Clark was dry and abandoned at 1,300 feet. Ramsey's No. 6 Henson was dry and abandoned at 1,272 feet. E. L. Smith's No. 4 George was drilled to a total depth of 1,330 feet, topped the pay at 1,310 feet and had an initial production of 100 bbls. hourly.

Coleman County

Levi Smith's No. 1 Morris was drilled to a total depth of 2,023 feet, had an oil show at 2,010-23 feet, a gas show at 1,962-2,005 feet and an initial production of 21,572,000 feet of gas and 150 bbls. oil. Tower & McKanna's No. 2 Crowder was drilled to a total depth of 2,015 feet, had a gas show at 1,979-93 feet and made 3,000,000 feet of gas and 690 bbls. oil at 1,994-2,015 feet. Vacuum Oil Co. and others' No. 3 Weaver had an initial production of 492 bbls. at 1,826-33 feet. White Eagle Oil & Refining Co.'s No. 4 Morris made 11,000,000 feet of gas at 1,978-97 feet and had an initial production of 250 bbls. at 1,997-2,021 feet. Continental and Atlantic Oil Producing Co.'s No. 6 Overall had an initial of 240 bbls. at 2,124-34 feet. Stepp & Keister's No. 3 Moody was dry and abandoned at 1,983 feet. Midwest Exploration Co.'s No. 4 Keeney had an initial production of 30 bbls. oil and 30,000,000 feet of gas at 2,005-12 feet and at 1,967-2,005 feet.

Callahan County

Campbell and others' No. 1 Hennessy was dry and abandoned at 1,730 feet. Moutray Oil Co.'s No. 1 Brown was dry and abandoned at 855 feet.

Eastland County

Outlaw and others' No. 1 Williams was dry and abandoned at 1,507 feet after having a show of oil and water at 1,486-1,507 feet. Texwa Oil Co. and Simms Petroleum Corp.'s No. 1 Lverla was dry and abandoned at 1,422 feet. Cranfill & Reynolds' No. 1 Killett was dry and abandoned at 1,320 feet. Hoffman & Page's No. 1-B Butler was dry and abandoned at 1,316 feet after having been shot with 32 quarts at 1,284-1,305 feet and with 15 quarts at 1,287-1,302 feet.

Root & Fehl and Velva Oil Co.'s No. 1 Good was dry and abandoned at 3,968 feet. Texwa Oil Co. and States Oil Corp.'s No. 1 Spencer & McGee was dry and abandoned at 1,350 feet after having a show of oil at 1,252-60 feet, plugged back to 1,265 feet and shot with 5 quarts at 1,305-11 feet. The location was abandoned on G. E. Vandiver's No. 1 Pippin. Whiteside Brothers' No. 1 Murrell and others was drilled to a total depth of 1,335½ feet and had an initial production of 25 bbls. at 1,318-35½ feet.

Erath County

Lone Star Gas Co.'s No. 1 Cage was dry and abandoned at 4,027 feet. Peters and others' No. 3 Barton had an oil show at 3,260-65 feet and an initial production of 17,613,000 feet of gas.

Haskell County

Superior Oil Corp.'s No. 6 Reynolds had an initial production of 40 bbls. at 1,680-86 feet.

Throckmorton County

Conway Brothers and Woodson Oil Co.'s No. 4 Overcash was dry and abandoned at 1,316 feet. Morton and others' No. 2 Matthews had a gas show at 1,279-89 feet and an initial production of 4,750,000 feet of gas, 325 pounds rock pressure.

Palo Pinto County

Comanche Oil Corp.'s No. 1 Smith was dry and abandoned at 1,600 feet. Texas Pacific Coal & Oil Co.'s No. 160 Stuart had an initial production of 150 bbls. at 1,590-1,609 feet.

Stephens County

Lone Star Gas Co.'s No. 4 Elliott was drilled to a total depth of 3,893 feet, shot with 20 quarts at 3,833-41 feet and tested 213,000 feet of gas.

Shackelford County

Big State Oil Co.'s No. 11 Russ-Webb was dry and abandoned at 1,117 feet. Their No. 12-Russ-Webb was dry and abandoned at 923 feet. Its No. 1 Spears was dry and abandoned at 1,065 feet. Dull-Earls-The Texas Company's No. 9 Matthews location was abandoned. Grisham-Hunter Corp.'s No. 3 Davis had an initial production of 12 bbls. oil at 1,632-37 feet and was drilled to a total depth of 1,651 feet. Swallow and others' No. 2 Reynolds was dry and abandoned at 1,270 feet. Tannehill and others' No. 24 Newell had an initial production of 40 bbls. at 913-36 feet.

CHANGES IN LINK-BELT CO.

From the executive offices of the Link-Belt Co., Chicago, comes announcement of the resignation of F. B. Caldwell, vice president of the Chicago plant, on account of health. W. C. Carter, formerly vice president in general charge of production at all Link-Belt plants, will assume the duties of vice president and general manager of the Chicago plant. E. J. Burnell, who was manager of the Pittsburgh office, has been appointed sales manager of the western division, with headquarters at the Chicago plant. Nels Davis, from the Chicago engineering sales force, succeeds Mr. Burnell as manager of Link-Belt's Pittsburgh office.

PRESIDENT HOLMES RETURNS

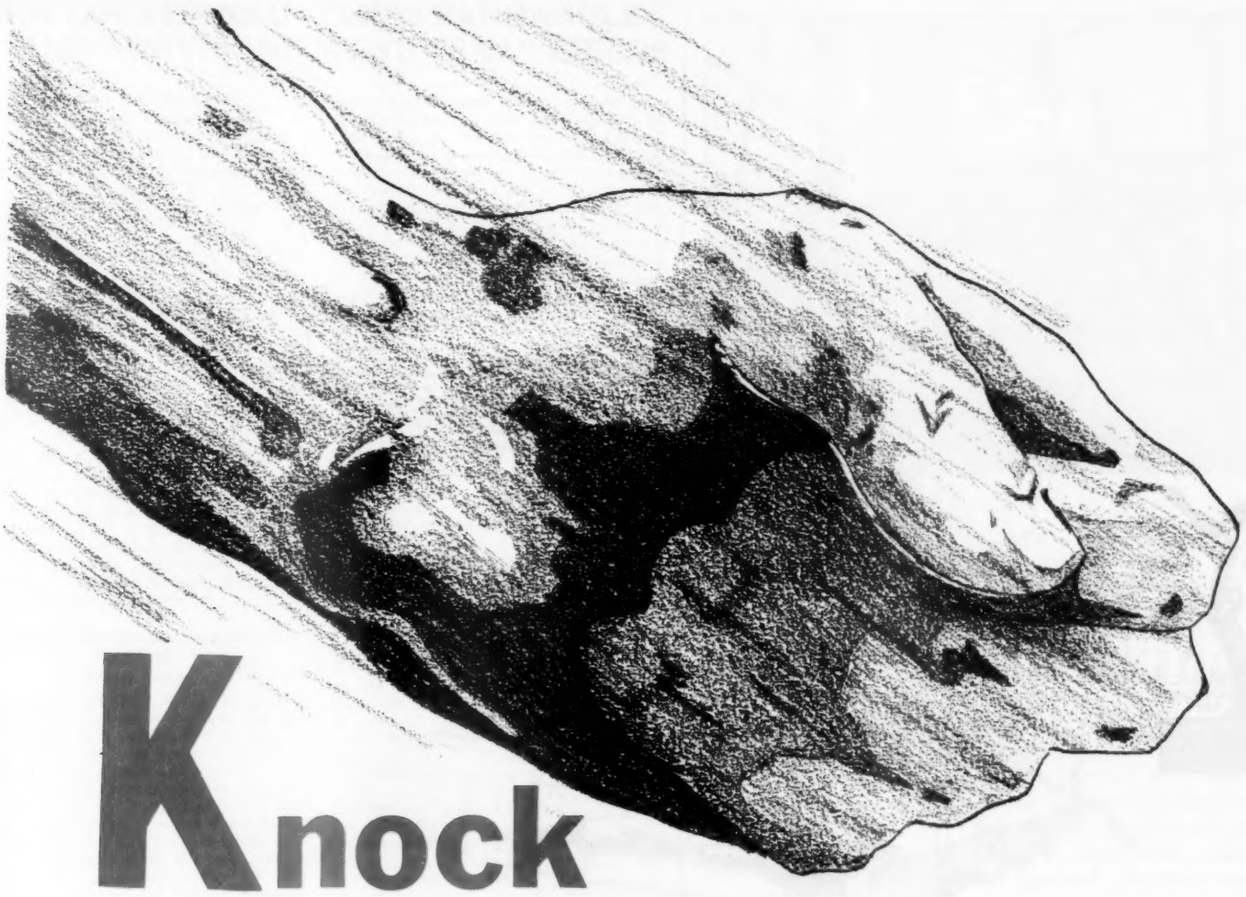
NEW YORK, Sept. 14.—R. C. Holmes, president of the Texas Corp., returned on the Berengaria yesterday from the world conference of oil executives held abroad during the past several weeks.

Mr. Holmes stated that his company was doing a satisfactory business, with earnings running in excess of 1928 totals. In that year, the Texas Corp. reported net income of $45,073,879, after depreciation, federal taxes, etc., equivalent to $5.34 a share earned on 8,443,354 shares of capital stock of $25 par value.

JUDGE BEATY'S VIEW

Overproduction in the oil industry, both here and abroad, is steadily being corrected through rapidly increasing consumption. Judge Amos L. Beaty, newly elected chairman of Transcontinental Oil Co., stated on his return from three months' vacation in Europe.

"Consumption of petroleum is increasing in foreign countries as well as in the United States," Judge Beaty observed, "and the day may not be far distant when we shall hear the last wail about overproduction of well oil. In the meantime, far seeing companies are looking for more reserves."



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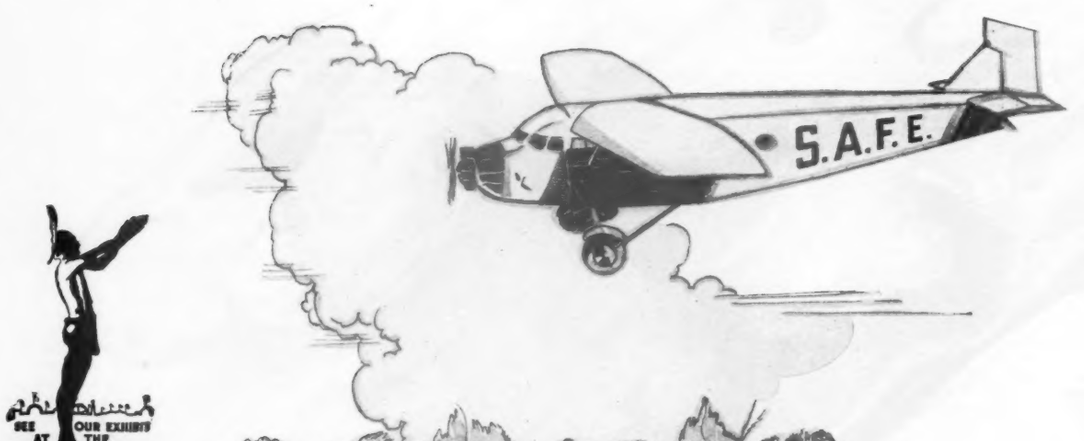
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NEW LOCATIONS IN TEXAS PANHANDLE AND NORTH AND WEST TEXAS FIELDS

TEXAS PANHANDLE

Gray County

Danciger Oil & Refining Co.'s No. 1 M. A. Shaw (Humphries), 330 feet north and 286 feet west of the southeast corner of the east 39.5 acres of the north 139.5 acres of the west 279 acres of Section 5, Block 1, A.C.H.&B. Survey. Bob Dunlop's No. 3 J. S. Morse, 330 feet north and west of the SE cor. N half NW, Section 2, Block 26, H.&G.N. Survey. Plains Drilling Co.'s No. 1 A. Chapman-A, 330 feet north and east of the SW cor. NE, Section 10, Block 26, H &G.N. Survey. Skelly Oil Co.'s No. 5 W. Jackson (North), 970 feet north and 330 feet west of the southeast corner of the west 190.5 acres of Section 90, Block B-2, H.&G.N. Survey.

Wheeler County

Lela Oil & Gas Co.'s No. 7 Williams & Laycock, 330 feet north and 209 feet east of the SW cor. W half NW, Section 20, Block A-8, H.&G.N. Survey. Martin & Debous' No. 2 I. Close, at the C NE NW, Section 83, Block 23, H.&G.N. Survey. Wischkamper and others' No. 1 J. W. Curry, at the C NE SE, Section 53, Block 23, H.&G.N. Survey.

NORTH CENTRAL AND WEST TEXAS

Archer County

Barnsdall Oil Co.'s No. 1 T. B. Wilson-D, 1,318 feet north and 150 feet east of the southwest corner of the south 40 acres of the east 100 acres of the T. B. Wilson 722-acre tract and located in the B. J. Howard Survey, A-179. Shappell Oil Co.'s No. 11 J. D. Lyles, 150 feet south and 450 feet west of the NE cor. SE NW, Section 7, Hooper & Wade Survey, A-234. Dr. C. W. Wallace,s No. 4 Kemp & Kempner (Block 75), 150 feet south and west of the NE cor. of the NW, Block 75, Kemp Wichita Valley Land. L. T. Burns' No. 1 D. M. and C. S. Harris, 450 feet south and east of the NW cor., Section 75, Club Ranch Subdivision. Clampett and others' No. 1 J. T. Richardson, 150 feet south and 214 feet east of the NW cor., Section 15, South Anderson Ranch Subdivision. Clark-Weldon & Lowery's No. 1 A. C. O'Donnell, 150 feet north and west of the southeast corner of the south 15 acres of the east 30 acres of Section 14, Crawford Subdivision. W. E. Maxon's No. 5 F. C. Green-B, 500 feet north and 175 feet west of the southeast corner of his 320-acre lease "B" out of the Joseph Levins Survey, A-259. A. Mitchell's No. 2 J. A. Kunkel, 450 feet north and 150 feet west of the southeast corner of the north 27 acres of the west 54 acres of Section 4, Thomas McCoy Survey, A-269. Prairie Oil & Gas Co.'s No. 2 J. T. Richardson, (Section 12), 750 feet north and 150 feet west of the SE cor., Section 12, Thomas McCoy Survey, A-269. Williams & Primrose Refining Co.'s No. 1 J. A. Kunkel, 150 feet south and west of the northeast corner of the south 27 acres of the west 54 acres of Section 4, Thomas McCoy Survey, A-269.

Baylor County

A. D. Hudspeth and others' No. 1 Upshur County School Land, 150 feet south and east of the northwest corner of Lot 6, Upshur County School Land, A-557. T. D. Humphrey and others' No. 1 J. J. Sykora, 150 feet north and 750 feet west of the southeast corner of the north half of the W. H. Loggins Survey, A-265.

Brown County

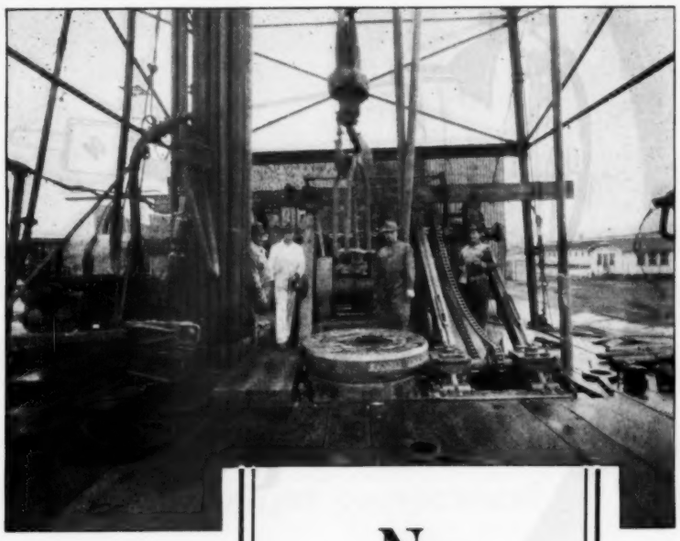
J. Bearman and others' No. 5 S. F. Miller, 500 feet north and 175 feet west of the southeast corner of the T. J. Swindell Survey. J. Bearman and others' No. 6 Miller, 500 feet north and 475 feet west of the southeast corner of the T. J. Swindell Survey. G. A. Buder, trustee's No. 3 Munselle, 150 feet south and west of the northeast corner of the west 80 acres of the south 120 acres of Section 3, W. Ahrenbeck & Brother Survey, A-20. W. T. Daniels and others' No. 2 S. B. Cannon, 150 feet south and west of the northeast corner of the west 20 acres of the north 40 acres of the west 80 acres of the north 200 acres of Section 3, W. Ahrenbeck & Brother Survey, A-20. P. French's No. 3 Dee Belvin, 150 feet south and 750 feet east of the most westerly northwest corner of the R. C. Chaddick Survey, A-1,202. Humble Oil & Refining Co.'s No. 16 J. C. Kilgore-B, 1,244 feet south and 200 feet west of the northeast corner of its lease "B" out of Section 3, J. Delgado Survey, No. 789. Same company's No. 3 Munselle, 150 feet south and 550 feet west of the northeast corner of the east 40 acres of the south 120 acres of the W. Ahrenbeck & Brother Survey No. 3, A-20. The Texas Company's No. 6 S. C. Kessler, 1,050 feet north and 150 feet west of the southeast corner of the S. C. Kessler tract out of Section 42, H. T.&B. Survey. The Texas Company's No. 5 S. C. Kessler, 750 feet north and 150 feet west of the southeast corner of the S. C. Kessler tract out of Section 42, H. T.&B. Survey. The Texas Company's No. 4 Kessler, 150 feet north and 750 feet west of the southeast corner of the S. C. Kessler tract out of Section 42, H.T.&B. Survey. E. L. Smith Oil Co.'s No. 6 George, 1,050 feet north and 150 feet east of the southwest corner of the L. A. George tract out of Section 42, H.T.&B. Survey. E. L. Smith Oil Co.'s No. 5 George, 750 feet north and 150 feet east of the southwest corner of the George tract out of Section 42, H.T.&B. Survey. H. Daniels' No. 1 C. P. Dunn, 1,037 feet north and 889 feet west of the southeast corner of the C. P. Dunn 120-acre tract out of the P. Curlong Survey, No. 151. Lloyd and others' No. 1 N. Henderson, 200 feet north and west of the southeast corner of the west 80 acres of the M. Henderson Survey, No. 2, A-1,885. Riordan and others' No. 1 C. H. Heath, 150 feet south and east of the northwest corner of the southwest of the W. S. Armstrong Survey, No. 41.

Callahan County

Continental Oil Co.'s No. 1 Alexander, 150 feet south and west of the NE cor. SE SE, Section 23, E.T.R.R. Survey. H. D. Creath's No. 1 J. A. Hutchinson, 1,980 feet south and 1,170 feet east of the NW cor., Section 136, B.B.B.&C. Survey. B. Hartley's No. 1 W. A. Hinds, 150 feet north and west of the SE cor. NW, Section 96, B.B.B.&C. Survey. Warren & Hays' No. 1 M. Johnson, 330 feet north and west of the SE cor. SE SE NE, Section 146, G.H.&H. Survey.

Coleman County

W. Gray's No. 1 G. M. Gray, 150 feet south and east of the northwest corner of the J. A. Wharton Survey, No. 174. Tower & McKanna's No. 4 J. J. Crowder, 150 feet south and 1,200 feet west of the northeast corner of the J. J. Crowder 240-acre tract out of the J. H. Woods Survey, No. 483. Tower & McKanna's No. 1 H. T. Porter (Slack), 150 feet north and west of the southeast corner of the north 50 acres of Lot 7, R. Merritt Survey, No. 256. White Eagle Oil & Refining Co.'s No. 6 J. P. Morris, 648 feet south and 550 feet west of the NE cor., Section 25, William Webber Survey No. 722. Same company's No. 7 Morris, 1,146 feet south and 650 feet west of the NE cor., Section 25, William Webber Survey, No. 722. Same company's No. 8 Morris, 1,644 feet south and 600 feet west of the NE cor., Section 25, William Webber Survey, No. 722. Charter Oil Co.'s No. 5 J. L. Crump, 650 feet north and 600 feet west of the southeast corner of Lot 13, J. Scott Survey, No. 665. Eppler and others' No. 1 F. E. Sampson, 150 feet south and 1,525 feet east of the NW cor., Section 272, S.P.R.R. Survey. R. Kamon's No. 1 J. Pfluger, 2,100 feet south and 3,800 feet east of the northwest corner of the William Skurlock Survey, No. 280. Anzac Oil Corp.'s No. 1 G. W. Jennings, 1,200 feet north and 750 feet west of the SE cor., Section 10, South Subdivision, M. Martinez Survey, No. 751. Stepp & Vandevetter's No. 3 C. E. Shore, 150 feet south and east of the NW cor., Section 72, G.H.&H. Survey.



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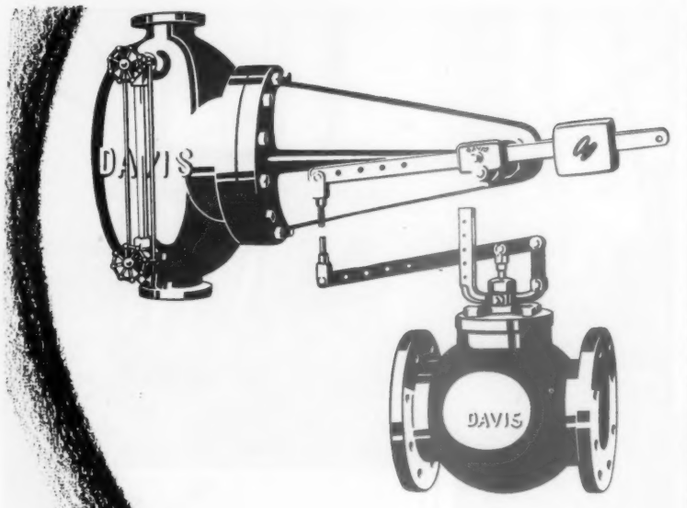

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OGJ 9-19 Gray

Meredith & Benton's No. 1 H. M. Weir, 1,650 feet south and 2,400 feet west of the northeast corner of the M. Lappe Survey, No. 744, being 200 feet north and east of the southwest corner of their 60-acre lease. C. S. Wilmot's No. 3 Lee Vaughn, 950 feet north and 800 feet east of the southwest corner of the Bonds & Sanders Survey, No. 79.

Cooke County

Danciger Oil & Refining Co.'s No. 8 J. F. Huggins, 150 feet south and 1,356 feet west of the northeast corner of their 76-acre lease out of the S.P.R.R. Survey, No. 9, A-982. Same company's No. 9 Huggins, 150 feet north and 450 feet west of the southeast corner of their 76-acre lease out of the S.P.R.R. Survey, No. 9, A-982. Same company's No. 10 Huggins, 150 feet north and 750 feet west of the southeast corner of their 76-acre lease out of the S.P.R.R. Survey No. 9, A-982. Shell Petroleum Corp.'s No. 3 Field & Bowers, 1,158 feet north and 150 feet east of the southwest corner of the Field & Bowers' 160-acre tract out of the C. F. Stanley Survey, A-904, being 647 feet south and 150 feet east of the northwest corner of their 101-acre lease. Shell's No. 5 Field & Bowers, 1,247 feet south and 150 feet east of the northwest corner of their 101-acre lease out of the C. F. Stanley Survey, A-904. Shell's No. 6 Field & Bowers, 150 feet south and 450 feet east of the northwest corner of their 101-acre lease out of the C. F. Stanley Survey, A-904.

Eastland County

Arab Gasoline Corp. and Teatsworth's No. 2 Victoria Harbin, 550 feet south and 150 feet west of the NE cor. SE NE, Section 9, Block 4, H.&T.C. Survey. Hoffman & Page's No. 5-A J. V. Harbin, 852 feet north and 160 feet east of the southwest corner of the J. V. Harbin tract out of Section 27, Block 2, H.&T.C. Survey.

Eastland County

Lone Star Gas Co.'s No. 1 G. D. Barton, 914 feet north and 1,000 feet west of the SE cor. of Lot 4, out of the east one-third of the T. A. Howell Survey. L. Woods and others' No. 1 F. P. Dunham, 150 feet south and east of the NW cor. of the E. P. Dunham 288.33-acre tract out of Section 10, Block 2, H.&T.C. Survey. Eastland Oil Co.'s No. 1 Hitson, 365 feet north and west of the SE cor. of the west 80 acres of the NW of Section 73, Block 4, H.&T.C. Survey.

Erath County

F. Stone and others' No. 1 W. M. Robertson, 150 feet north and 330 feet east of the SW cor. of the Robert Woods Survey.

Fisher County

Cranfill & Reynolds' No. 1 N. G. Barrett, 330 feet north and east of the SW cor. of the NE of Section 199, B.B.B.&C. Survey.

Howard County

Godley Oil Co.'s No. 6 A. J. Hooks, 2,440 feet south and 600 feet east of the NW cor. of Section 140, Block 29, W.&N.W.R.R. Survey. Merrick-Bristow Oil Co.'s No. 10 Dora Roberts, 1,155 feet north and 1,980 feet east of the SW cor. of Section 137, Block 29, W.&N.W.R.R. Survey. Plymouth Oil Co.'s No. 6 Kloh & Rumsey, 1,650 feet north and 330 feet east of the SW cor. of Section 5, Block 32, T-2-S, T.&P. Survey. Simms Petroleum Co.'s No. 2 H. R. Clay, 300 feet north and 2,340 feet east of the SW cor. of Section 127, Block 29, W.&N.W.R.R. Survey. Ward Oil Co.'s No. 12 Dora Roberts, 2,430 feet north and 1,180 feet east of the SW cor. of Section 137, Block 29, W.&N.W.R.R. Survey.

Gulf Production Co.'s No. 8 H. R. Clay, 330 feet south and 1,650 feet west of the NE cor. W half, Section 155, Block 29, W.&N.W.R.R. Survey.

Jack County

C. W. Boller and others' No. 1 J. A. Raley, 1,368 feet south and 300 feet west of the NE cor. of the west 100 acres of the J. A. Raley 333-acre tract out of the I. Hughson Survey, A-256. Panhandle Refining Co.'s No. 5 J. T. O. Smith, 347 feet north and 233 feet west of the SE cor. of the J. T. O. Smith 169.5-acre tract out of the I. Hughson Survey, A-256. B. J. Shaw's No. 2 J. M. and W. E. Box, 5,000 feet south and 5,750 feet east of the NW cor. of the I. Hughson Survey, A-256, being 150 feet north and 240 feet east of the most southerly SW cor. of their 62.7-acre lease.

Palo Pinto County

Gordon & Gholson's No. 1 M. J. Taylor, 1,800 feet south and 330 feet west of the most easterly NE cor. of the M. J. Taylor 156.5-acre tract out of Section 21, Block 1, T.&P.R.R. Survey. Neeley & Halbert's No. 1 E. Neal, 1,950 feet south and 5,950 feet west of the NE cor. of the G. M. Collingsworth Survey No. 22, A-121, being 995 feet north and 660 feet west of the SE cor. of Lot 14.

Pecos County

Henshaw Oil Corp.'s No. 1 J. A. McDonald, 330 feet south and east of the NW cor. of the south 109 acres of the north 189 acres of Section 2, H.E.&W.T. Survey. Henshaw Brothers and others' No. 1 University, 330 feet south and east of the NW cor. of the SE of the NE of Section 24, Block 18, University Land.

Landreth Production Corp.'s No. 1 J. A. McDonald, 330 feet south and east of the NW cor. of the SE of Section 46, Block 12, H.&G.N. Survey. Same corporation's No. 2 University-A, 330 feet south and west of the NE cor. of the SE of the SE of Section 13, Block 18, University Land. Same corporation's No. 1 University-C, 330 feet south and west of the NE cor. of the NW of the SW of Section 31, Block 16, University Land. Same corporation's No. 1 University-D, 990 feet north and east of the SW cor. of Section 31, Block 16, University Land. Landreth Production Co. and World Oil Co.'s No. 2 University-B, 1,660 feet south and 990 feet west of the NE cor. of Section 13, Block 18, University Land. McMan Oil & Gas Co.'s No. 8 M. A. Smith-C, 1,667 feet south and 330 feet west of the NE cor. of Section 25, Block 194, G.C.&S.F. Survey. Same company's No. 9 M. A. Smith-C, 3,647 feet south and 330 feet west of the NE cor. of Section 25, Block 194, G.C.&S.F. Survey. Same company's No. 5 J. H. Tippett, 330 feet north and 200 feet west of the SW cor. of Section 101, T.C.R.R. Survey and located in Section 107, C.T.&M.C. Survey. Mid-Kansas Oil & Gas Co.'s No. 3 Yates-E, 1,355 feet south and 1,957 feet east of the NW cor. of Section 59, Block 1, I.&G.N. Survey. Sun Oil Co.'s No. 2 University Land, 330 feet south and 353 feet east of the NW cor. of Section 8, Block 17, University Land. Sun Oil Co.'s No. 1 University (Carlson), 990 feet south and 1,350 feet east of the NW cor. of Section 34, Block 18, University Land. Sun Oil Co.'s No. 1 University (Toler), 330 feet south and 2,310 feet west of the NE cor. of Section 25, Block 18, University Land. The California Co.'s No. 3 M. S. Smith (Lease 5, Section 16), 337 feet north and 166 feet west of the SE cor. of Section 16, Block 194, G.C.&S.F. Survey.

Gulf Production Co.'s No. 21 M. A. Smith and others, trustee-A, 1,544 feet north and 330 feet west of the SE cor., Section 28, Block 194, G.C.&S.F. Survey.

Runnels County

Gibson & Johnson and others' No. 1 Wood, 2,600 feet northeast of the southwest line and 300 feet northwest of the southeast line of the T. T. Williams Survey No. 529.

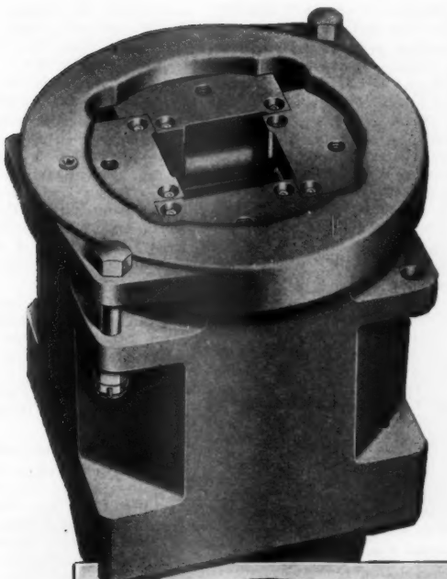
Shackelford County

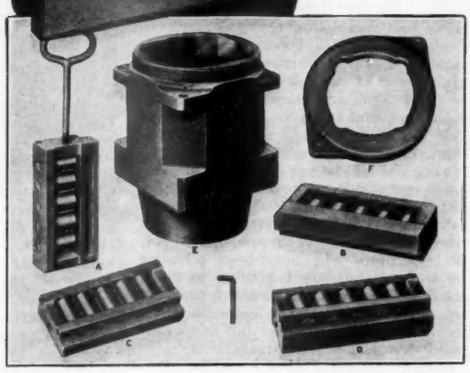
George Callahan's No. 1 Shackelford County, 725 feet north and 194 feet west of the SE cor. of Section 17, Block 11, T.&P. Survey and located on the Shackelford County 8.2-acre tract. A. J. Hughes' No. 1 W. H. Green, 1,520 feet south and 200 feet west of the NE cor. of Section 66, Block 12, T.&P. Survey. T. James' No. 2 Newell, 750 feet south and 1,050 feet east of the NW cor. of the SE of Section 87, Block 10, E.T.R.R. Survey. T. S. Hendricks' No. 1 T. Newcomb, 150 feet south and 3,419 feet east of the most westerly NW cor. of the L. Wilbur Survey No. 41. Moutray Oil Co.'s No. 1 Jenkins, 1,633 feet north and 1,947 feet west of the SE cor. of Section 26, Block 12, T.&P. Survey. Richardson Brothers & Callihan's No. 1 Mrs. B. A. King, 150 feet north and 450 feet east of the SW cor. of the southeast 40 acres of the north 160 acres of the east 320 acres of Section 214, Block 10, E.T.R.R. Survey.

(Continued on Page 188)

Now...a ROLLER BEARING Kelly Bushing

...already standard equipment with several major companies!





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Oil and Gas Journal, Sept. 19, 1929

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CHICAGO PNEUMATIC TOOL COMPANY promises that soon

The Cost of Drilling Oil Wells is going to take a Drop!

See Booth No. 71 at the Tulsa Exposition.

KENTUCKY-TENNESSEE

(Continued from Page 70)

Church lot, is said to be good for an initial of 400 bbls.

Rex.-Pyramid Oil Co.'s No. 2 on the Sallie Hoover farm, adjoining the Barnett's Creek Church lot, is also a 400-bbl. initial producer.

Cumberland Petroleum Co.'s No. 1 on the Cicero M. Wade 100 acres, directly west of the Bartlett 54-acre lease, which was the discovery well of the Bartlett Pool, and midway between the Bartlett Pool and the good wells found by the Rex-Pyramid Oil Co. on the William Morgan farm, and adjoining the Sallie Roover lease on the northeast, is another of the good producers, estimated for 400 bbls. initial. These three big wells in the vicinity of the Church lot and the nearness of the big producers on the Bartlett, and other leases in the Bartlett Pool proper and the big Morgan Pool, have brought about a rush of the drill.

In the Deanfield area in the northern part of Ohio County, James C. Ellis and others' Nos. 5 and 6 on the Ira Mosley farm are rated at 30 bbls. each, while No. 7 is rated good for 50 bbls., and No. 8 for around 120 bbls. initial.

In the vicinity of Oklahoma, James C. Ellis and others' second well on the Clay Ford farm is reported at 40 bbls. initial. No. 1 on this farm was a duster. White and others' No. 1 on the Ernest Bickett farm, 6 miles east of Whitesville, in the Deanfield area, shows for 35 bbls. with 23 feet of pay sand at a total depth of 540 feet.

In the Ralph district, George Slate and others' test on the Kirk-Woodward lease was dry at 675 feet. D. J. White and others' No. 4 on the Jeff Wade 50 acres, same field, produced 10 bbls. initial at a total depth of 421 feet. In this hole a string of 390 feet of casing was set, with sand from 398 to 418 feet. S. R. Nigh and others' No. 11 on the A. P. Kelley 340 acres, same area, pumped 10 bbls., while Ray Bigler and others' No. 9 on the J. E. Hendix 80 acres, in the Whittaker Pool, was a dry hole at 595 feet.

Daviess County Wells

The best completion reported from the Owensboro Field in Daviess County was found by Evans & Garrison on the Clark farm, south of the Oscar Wells farm, in the Utica Pool, and reported at 300 bbls. or better initial from the Barlow sand at 1,368 feet. Twenty-four feet of pay sand was drilled through and the well started flowing and will be put on the pump without a shot. This well opens up new possibilities in the Utica Field, as three oil bearing sands now are tapped, the Brown, Jones and Barlow, each producing heavily. Operators who have been pumping the higher sands are beginning to study possibilities of going through to the Barlow, and it is likely other leases that have been abandoned when the top sand were found dry will be drilled again.

Leeper Oil Co.'s No. 8 on the Pete Mahloskey 52 acres, in the Utica Pool, produced an initial of 60 bbls. Foster Oil Corp. got a dry hole on the L. C. Mattingley farm, a mile south of St. Joseph, in the extreme western part of Daviess County. Petroleum Exploration Co.'s No. 1 on the W. R. Russell 116 acres, in the Red Hill district, produced 35 bbls. initial.

James C. Ellis and others' No. 2 on the Rebecca Westerfield 30 acres, southeast of Whitesville, was dry at 598 feet. Petroleum Exploration Co.'s No. 6 on the F. F. Coomes farm, in the Roby Pool, developed into a 3-bbl. pumper.

Scattered Completions

In the Greenville Field of Muhlenburg County, two good wells were brought in, both being estimated at 200 bbls. each. They are James C. Ellis and others' No. 1 on the Rice Brothers farm, and the other being the Missouri-Kansas Pipe Line Co.'s No. 1 on the Jack Corley farm.

In LaRue County, near Hodgenville, F. C. Moore and others have another dry hole on a block of leases, making five straight dusters for that county.

In the Niagara Field of Henderson County, Arnold & Esslinger's test on the H. C. Eades farm, on the Robards-Anthoston Roads, was dry at 740 feet. H. Z. Clark's No. 2 on the J. E. Knight farm, same pool, is reported at 75 bbls. initial.

Near Nuckols, in McLean County, Sargent and others drilled what is reported a 25-bbl. producer on an unknown lease, the oil being found at a depth of 1,040 feet. The Ohio Oil Co.'s No. 1 on the J. B. McManama No. 2 farm, 4 miles west of Utica, in the same county, is reported good for 10 bbls.

Total runs from wells served by the Illinois Pipe Line Co. in western Kentucky during the month of August, 1929, were 266,341.94 bbls.

H. C. Smith Oil Co. is about due to complete No. 6 on the Ida Kelley farm, in the Fordsville area of Ohio County. James C. Ellis and others have made locations for Nos. 9 and 10 on the Ira Moseley farm, same county. Fred Weir and others are drilling Nos. 8 and 9 on the Norris heirs farm, in the Deanfield area, also their No. 1 on the Muffett farm, offsetting the A. P. Kelley farm. Pampas Oil & Gas Co. is drilling No. 1 Reat Haynes farm, same field.

Among the new wells starting in the Owensboro Field of Daviess County are: Jim Smith's No. 1 John Sinclair farm; Young, Duncan and others' No. 2 M. D. Yeiser farm; L. C. Young's No. 7 J. L. Park; Penn-Indiana Oil Co.'s Nos. 9 and 10 on the First National Bank farm; Fred Evans' No. 1 J. B. Sullinger farm, and Vickers and others' No. 4 Stinnett heirs farm.

C. E. Daugherty and others are drilling No. 1 on the Judge H. H. Farmer farm, 2½ miles of the town of Robards, in Henderson County. Wittmer Oil & Gas Co. is starting a test on the John Griffin farm, on Pleasant Valley, and on Robards and Hodge Griffin Roads, same county.

Big Gas Completion

Late advice from the Sunnydale Field in Ohio County, Kentucky, is that the Wood Oil Co. has drilled in a well on the Duke farm that showed for a volume of 5,600,000 feet of gas.

Another interesting late find is a well drilled by the Cumberland Petroleum Co. and Kemrow Co. on Hayden heirs lease in the Salmon Pool in Daviess County, which flows heavily from the McCloskey sand, which is something new for the Daviess County area. No estimate has been made of the well's production, but it shows as good as the best wells in the Bartlett, Ambrose and Morgan Pools in Ohio County as well as the rich pools in Daviess County. The finding of this sand may mean deeper drilling in many of the older wells. The McCloskey sand was named many years ago when a well was drilled on the McCloskey farm, in Lawrence County, Illinois, that had a production of better than 3,000 bbls. in 24 hours. This sand does not have any great thickness, but is rich when oil is found in it. The McCloskey sand is similar to the Gordon sand found in the old Pennsylvania and West Virginia Fields.

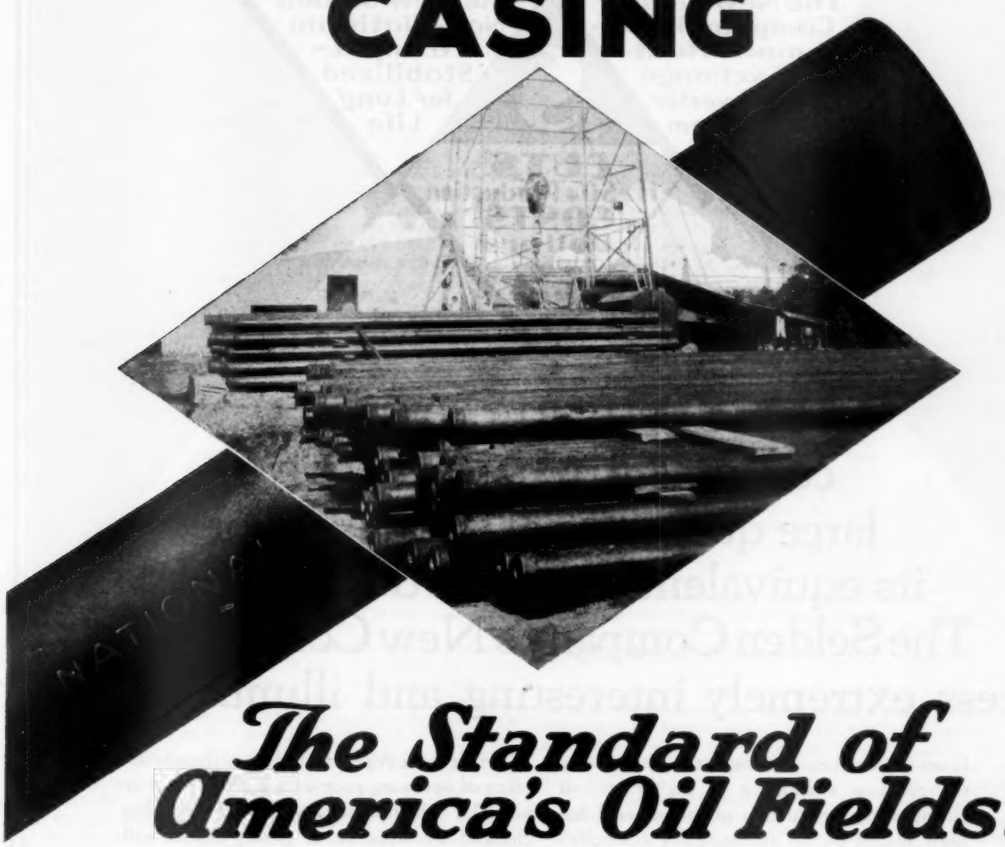
CHURCHILL VISITS OIL FIELD

CHATHAM, Ontario, Sept. 14.—In the course of his Canadian tour, Winston Churchill, former British chancellor of the exchequer, paid a visit to the Turner Valley oil field. The visiting party inspected Royalite's No. 4 gusher, the Royalite scrubbing plant, and a number of drilling and producing wells in the central and southern sections of the field, and lunched at the Imperial Oil headquarters. Later Mr. Churchill visited the Prince of Wales ranch near High River.

TO MEET AT CALGARY

GREAT FALLS, Mont., Sept. 14.—The Alberta Oil & Gas Association is perfecting plans for the joint convention with the Rocky Mountain Oil & Gas Association, which will be held at Calgary on September 19, 20 and 21. Walter F. Brittan is secretary of the Rocky Mountain Association.

NATIONAL
A.P.I. DIAMOND BX and B8
CASING



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Whether you have ever considered the advisability of operating your own H_2SO_4 plant or not, The Selden Company's New Process has changed the situation so greatly that it will pay you to investigate. As a profitable by-product, contact sulphuric acid made so cheaply by this new process offers a real opportunity in addition to the savings on the quantity you need for your own manufacturing processes as it is readily marketable and can be shipped economically.

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CANADIAN FIELDS

(Continued from Page 64)

discharge the liability of the Royalite Oil Co. to the Imperial company and leave upwards of $500,000 in the treasury for working capital.

British Dominion Oil Development Corp.'s No. 2, LSD 6, Section 12-20-3w5, is drilling at 4,990 feet with 2,000 feet of light crude in the hole.

In the southern section of the Turner Valley Field, Calmont Oils' No. 7, LSD 11, Section 20-19-2w5, is rigged up to spud in. Freehold Oil Corp.'s No. 2, LSD 8, Section 20-19-2w5, is drilling around 3,635 feet, with a small gas show. Miracle Oils' No. 1, LSD 11, Section 4-19-2w5, is drilling at 3,060 feet, after getting a small show at 2,940 feet. Mill City Petroleums' No. 1, LSD 14, same section, has derrick up and is installing rotary outfit.

Commonwealth Petroleums' No. 2, LSD 7, Section 9-19-2w5, is at 3,915 feet and drilling, after getting oil shows in the Home sand, which was entered at 3,450. Commonwealth's No. 3 is erecting derrick in LSD 5, about 200 feet north of No. 2

East Crest's No. 2, LSD 4, Section 16-19-2w5, is drilling at 1,865 feet after getting oil and gas shows in the Dakota sand around 1,800 feet.

Deepest Well in Canada

In the north end of the Turner Valley, Spooner Oils' No. 2, Section 24-20-3w5, is on production test, and reported making around 65 bbls. a day at a depth of 5,988 feet. The hole is 910 feet in the lime, and is the deepest producing well in Canada, but production appears to be largely coming from the upper horizon in the lime, and was not materially increased by deeper drilling. The well will likely be finished at the present depth. Spooner's No. 3, same section, is rigged up ready to spud in; and Spooner's No. 4, LSD 5, same section, is working on cellar. Spooner's No. 1, Section 24-20-3w5, is making around 35 bbls. a day from the lime.

United Oils' No. 4, LSD 2, Section 24-20-3w5, has casing swedged to 4,830 feet, and is bailing some light crude. Study of the logs in this area indicates that both United's No. 4 and Dome's No. 1 are on the west flank of the east fold of the Turner Valley structure, which is apparently further east than had been believed.

Model Oils' No. 1, LSD 8, Section 22-20-3w5, is drilling at 5,265 feet, after temporarily casing off the oil flow at 5,238 feet.

Vanguard Oils' No. 1, SE Section 34-19-3w5, will spud in late this month. Invader Oils' No. 1, LSD 10, Section 9-21-3w5, is reported drilling in the lower Bentons around 2,100 feet, after getting a gas flow, estimated 2,000,000 feet a day, at 1,392 feet.

Sinclair-Highwood

In the Sinclair-Highwood area of the foothills belt, there is considerable activity in progress, though results so far are largely negative. The outstanding test in this area is Imperial's Highwood No. 1, LSD 3, Section 36-18-3w5, which has finished rereaming to 4,475 feet. This test got the Madison at 4,226 feet but after drilling about 200 feet in the lime encountered a recurrence of the Fernie shales, due apparently to a fault plane. It will be carried deeper as soon as the hole is enlarged, and should be making new hole next week. The test is being drilled by Imperial Oil, Ltd., on acreage of the Highwood Petroleum & Natural Gas Co. Imperial's Highwood No. 2, Section 21-19-3w5, is reported digging cellar.

Five miles south of Imperial-Highwood's No. 1, Hudson's Bay-Marland Oil Co.'s No. 1 Highwood, Section 8-18-3w5, is drilling out cement at 210 feet. About 2½ miles west and a mile south of this, Banner Oils' No. 1, LSD 6, Section 34-17-3w5, has spudded in. Five miles south of the Hudson's Bay-Marland test, Western Alberta Oil Co.'s No. 1, LSD 11, Section 7-17-2w5, on the Bar U ranch, is drilling a rotary test at 150 feet. Three miles west and a mile south of Imperial's Highwood No. 1, Warner Oils' No. 2, LSD 4, Section 28-18-2w5, has been abandoned owing to casing trouble at 1,350 feet, after encountering favorable oil showings. Warner's No. 3 has been located close to No. 2, and the rig skidded for a new test. Southwood Oil Co. has located its No. 1 test in LSD 7, Section 36-16-2w5. This test is of unusual interest because it is located close to the old Christie well, abandoned some years ago at around 2,600 feet owing to telescoped casing, with 2,000 feet of oil in the hole. The crude from this hole tested 35.4 gravity. Officers of Southwood Oil Co. are: President, J. D. Thomas; secretary, Miss V. B. Christie; directors, Dr. W. Piper, Dr. A. Fettes, Dr. Neil Christie.

On the Waite Valley structure, Calgary Producing & Development Co.'s No. 1, LSD 10, Section 21-19-3w5, has derrick up. Innerfold Oils' No. 1 is drilling at 1,010 feet after encountering three small oil shows in the lower Dakotas.

On the Ghost River structure, Baymar Oils' No. 1, Section 5-26-6w5, is drilling. On the Calling Valley structure, Anglo-Indian Oils' No. 1, LSD 4, Section 31-21-3w5, has cellar dug and is moving in derrick timbers.

In the High River district, south of Calgary, High River Oils' No. 1, LSD 6, Section 34-18-29w4, has spudded in with 24-inch hole. Location is 3 miles southwest of High River, on a structure where a small flow of wet gas was encountered in a shallow test at 504 feet. Gas from this horizon is expected to provide fuel for drilling.

Skiff Field

In the Skiff Field, southern Alberta, Dauntless Oils' No. 1, LSD 9, Section 36-6-15w4, is drilling at 2,380 feet, and should reach the oil sand this month. Lion's Gate Oil Co. of Vancouver is financing for No. 1 test in LSD 1, Section 33-6-15w4.

West of Coutts on the Red Coulee structure, Vanalta Oils' No. 1, Section 4-1-16w4, is sidetracking a lost bit at 2,150 feet. The test is logging high in comparison wih Imperial Oils' Red Coulee well which some years ago got a fair show of crude and later was abandoned on account of water. It should get the oil horizon around 2,500 feet. Hol-Gar Petroleum Co.'s No. 1, LSD 1, Section 11-1-17w4, is rigging up for a test of the same structure.

Hudson's Bay-Marland Oil Co.'s Champion No. 1, Section 9-16-23w4, is underreaming for 10-inch casing at 2,500 feet. Hudson's Bay-Marland's No. 1 Lomond, Section 23-17-18w4, is drilling new hole at 800 feet after sidetracking lost tools.

In the Taber district, Cole English Syndicate's No. 1, SW Section 11-10-17w4, is unloading equipment and laying gas lines to take fuel for camp and drilling from the Canadian Western Natural Gas Co.'s Bow Island line. The test will spud in about the end of September.

In the Suffield district, Ontario-Alberta Oil Developments, Ltd., is reported resuming work on its wildcat test near Suffield. This test was started a couple of years ago on acreage originally prospected prior to the opening of the Kevin-Sunburst Field. The acreage is about 35 miles northwest of Medicine Hat.

Wainwright Field

In the Wainwright Field, east-central Alberta, Beaumont Oils' No. 1, Section 2-45-7w4, has been drilled into the sand encountered at 2,183 feet, and is bailing what is claimed to be a light crude, different from the heavy crudes of the Wainwright Field. A possible production of 100 bbls. a day is claimed. When the well is clean, a pumping test will be made. Samples of the crude are being analyzed. Edalta Oils' No. 1, LSD 15, Section 19-45-6w4, is installing rotary equipment.

In Manitoba, Dauphin Oil Syndicate's No. 1 test near the town of Dauphin is reported drilling in the Devonian limestone at 700 feet. The test is being financed by Vancouver, British Columbia, interests who have organized a closed syndicate under British Columbia charter. H. Holmes is managing director.

Ontario Fields

In the Ontario Fields, Ajax Oil & Gas Co.'s No. 5, Robert Barnier farm, Concession 4, Dover East Township, Kent County, was shot in the Trenton limestone at 3,200 feet with 800 quarts of nitroglycerin. A slight gas show encountered in the Trenton formation was not materially increased by the shot, and the well is being abandoned as of no commercial value and the casing pulled. The outfit is being moved to the Labombarde farm, 900 feet east of Ajax' No. 4 producer, where No. 6 will be drilled. No. 4 well was finished earlier in the summer with an indicated production of around 750,000 feet a day, which was increased to 5,000,000 feet by a shot in the lime. No. 5 was located about 1,300 feet east of No. 4. No. 6 test will be drilled 1,350 feet southwest of No. 5, the operators believing that No. 5 was located too far north. About 1,750 feet northwest of Ajax No. 4 producer, Acme Oil & Gas Co.'s No. 1 is drilling below 1,100 feet. Olga Oil & Gas Co. has located a test just east of the Ajax locations, and is reported rigging up. It is reported that Para Oil & Gas Co., another new organization, is making a location. Ajax' No. 4 is reported to have been connected with the Union Natural Gas Co.'s Sarnia line, the Ajax company laying 3½ miles of 8-inch line for the purpose.

In Halton County, Bull & Ogletree are rigging up for a test for oil and gas on the Mrs. J. A. Macklin farm, Nelson Township, near Milton. It is expected the test will get a producing horizon in the Trenton limestone at comparatively shallow depth.

In Prince Edward County, Ontario, Henry McConnell of Picton is drilling a shallow test for oil on the John Starks farm 5 miles south of Mitford. Some 48 years ago a water well drilled at this point encountered some gas and traces of oil. At the time neighbors were suspected of spoiling the well by pouring oil on it and it was closed as no good. Mr. McConnell has since had considerable experience in oil field work and has brought in a drilling outfit to test the area. McConnell's No. 1, located a few feet from the old water well, found traces of oil and gas at 30 feet and at 50 feet a small gas flow, while a little salt water was met at 58 feet. At last reports the drill was working in what appeared to be a hard limestone at 66 feet. The location is a half mile from Lake Ontario, in the eastern part of the province where the Trenton limestone is close to the surface.

SOUTHWEST TEXAS FIELDS

(Continued from Page 59)

derrick. W. R. Shankle's No. 2 Holbein, Share 3, Las Animas grant, located 150 feet north line, 450 feet west line, Block 11, Hogg Ridge Subdivision, at 1,250 feet, drilling.

Schott Field—Webb

Livingston & Paynes' No. 1 Guerra-Ochoa, Survey 58, located 917 feet east line, 470 feet south line, at 1,649 feet, cleaning out, preparing to set casing.

Carolina-Texas Field

Foster Barsley's No. 6 Webster, NE SW Survey 684, located 150 feet south and east lines, at 2,200 feet, drilling. Trapshooter Reilly Oil & Royalties Co.'s No. 2 Benavides, Survey 685, located 1,170 feet west line, 150 feet north line, at 3,066 feet, sand saturated with oil.

Magnolia-Cole Field

Cole Petroleum Co.'s No. 67 Benavides, Survey 412, Block 12, located 313 feet east line, 160 feet north line, at 38 feet, standing. Magnolia Petroleum Co.'s No. 1 J. C. Valdez, Survey 754, Block 15, located 150 feet south and west lines, is derrick; No. 1 A. Benavides, N half Survey 660, located 660 feet south and east lines, derrick; No. 1 M. Benavides, N half NW Section 660, located 660 feet south and east lines at 4,731 feet, drilling; No. 1 C. Benavides, Survey 662, located 660 feet north and east lines, at 1,859 feet, drilling.

Cole Gas Field

Houston Oil Co.'s No. G-2 R. Benavides, Survey 701, located 666.2 feet south side, 666.3 feet east line, location. O. W. Killam's No. 12 Bruni, Share 3, Adams Subdivision Bruni Lands, 330 feet southeast lines, 150 feet southwest lines, at 1,380 feet, coring. J. J. O'Hern's No. 1 Valdez, Survey 754, located 660 feet north and east lines, location; No. 3 Benavides, Survey 694, Block 5, located 450 feet south line, 150 feet west line, location. Magnolia Petroleum Co.'s No. 2 H. Benavides, Survey 697, located 660 feet north and west lines of SE of SW, location.

Jennings Field—Zapata

Blair & Acklin's No. 2 Trevino, Survey 66, Block 1, located 150 feet west line, 190 feet north line, at 80 feet, drilling. Blankenship and others' No. 1 Trevino, Survey 413, located 2,480 feet south and east lines, location. Evans and others' No. 1 Trevinox, Survey 62, located 1,490 feet north and west lines, location. Killam-Duggan's No. 7 Cuellar, Survey 277, located 1,650 feet south line, 2,840 feet east line, at 100 feet, drilling. South Texas Production Co.'s No. 1 Roy Jennings, Mira Flores Grant Survey, located 18,055 feet southwest lines, 11,040 feet southeast lines, at 3,280 feet, drilling; No. 6 Joe Jennings, Cerrito Blanco Grant Survey, 2,640 feet southeast lines, 660 feet northeast lines, location.

Mirando Valley Field

O. W. Killam's No. 1 Flores, Survey 240, located 850 feet southeast lines, 560 feet northeast lines, at 1,260 feet, drilling.

Somerset Field—Atascosa

Schimmel Production Co.'s No. 3 H. F. Gayle, C.E.P.I.&M., Block 2, 946 feet east of No. 1, location.

Yoast Field—Bastrop

The Texas Company's No. 8 Yoast, A Garcia Survey, location.

Pettus Field—Bee

Mission Drilling Co.'s No. 4, located 150 feet northwest of No. 1 Ray, at 2,175 feet, drilling in sandy shale.

Dobrowolski Field—Bexar

Amelia Balzart's No. 3 J. P. Adams, 150 feet from road offsetting No. 1 Dobrowolski, derrick up. F. H. Eckert's No. 4 Dobrowolski, 330 feet southwest of No. 3, is location.

Joe Bruner Field—Caldwell

J. W. Allen's No. 1 A. B. Jackson, Spencer Morris Survey, 150 feet north and west lines, at 2,631 feet, plugging back to shoot. Tip de Arman's No. 3 G. F. Carter, James Hinds Survey, 50 feet north and west lines, location. E. R. Brawn & C. O. Miller's No. 2 R. W. Carter, Gerren Hinds Survey, 150 feet north and west lines, at 2,680 feet, cleaning out hole, showing considerable water. Forest Oil Co.'s No. 1 M. H. Woods, Isaac Weldon Survey, south central part of lease, location; No. 1 T. Enriquez, Luling Townsite, Block 32, center of Lot 30, location. T. C. Hadley's No. 1 J. M. Hanson, James Hinds Survey, 150 feet south and east lines of W half of east 20 acres of J. M. Hanson farm, at 2,640 feet, shut down; No. 4 Merriwether, at 2,741 feet, swabbing much water, little oil. Humble Oil & Refining Co.'s No. B-5 M. B. Johnson, James Hinds Survey, 206 feet south line, 850 feet east line, at 2,349 feet, drilling in Taylor; No. 1-B J. L. Northcut, at 2,687 feet, drilling, top of Edwards 2,680 feet; No. 13-B Moses-Baggett, James Hinds Survey, 450 feet east line, 1,189 feet south line, at 2,691 feet, in Edwards; No. 3-C J. R. Tiller, James Hinds Survey, 206 feet north line, 559 feet east line, at 2,330 feet, drilling in chalk; No. 1 Walker Brothers, A. Floyd Survey is location. Humble Oil & Refining Co. and Luling Oil & Gas Co.'s No. 7 C. F. Dye, James Hinds Survey, 150 feet north line, 450 feet east line, at 2,688 feet, in Floy Gray, 525 feet south line, 820 feet west line, at 2,683 feet drilling; No. 9-A Edwards, waiting on cement; No. 6-A Floy Gray, James Hinds Survey, 450 feet west line, 150 feet north line, at 2,689 feet, preparing to swab; No. 6-C Floy Gray, James Hinds Survey, 150 feet south and west lines, at 2,685 feet, waiting on cement; No. 7-C Floy Gray, James Hinds Survey, 450 feet west line, 571 feet north line, at 2,671 feet, topped Edwards, swabbing; No. 8-C Floy Gray, James Hinds Survey, 450 feet west line, 150 feet south line, at 2,650 feet, preparing to plug back; No. 7 T. A. Tiller, James Hinds Survey, 150 feet south line, 450 feet east line, at 2,640 feet, in Georgetown. Morgan Brothers' No. 1 Cora Malone, A. Floyd Survey, rigging up. Nash, Windfohr & Perry's No. 4 Wilson, A. Floyd Survey, 200 feet west line, 350 feet north line, location. The

Texas Company's No. 8 Merriwether at 2,786 feet, standing, shot casing.

Darst Field—Guadalupe

Gulf Production Co.'s No. 1-C Anderson, Jacob C. Darst Survey, 150 feet south and east lines, location; No. 1 Tadlock, Jacob C. Darst Survey, 150 feet northwest corner, location. Sun Oil Co.'s No. 1 Manford, James Hodge Survey, 1,950 feet southeast line, 150 feet southwest lines, at 1,500 feet, drilling in Marl. The Texas Company's No. 2 Dallas Wilson, Jacob C. Darst Survey, 150 feet south and west lines, derrick; No. 2 Lemmie Anderson, 150 feet out of northeast corner, at 685 feet, shut down; No. 3 Lemmie Anderson, 150 feet north and west lines, location corrected; No. 4 Lemmie Anderson is derrick.

Kingsville Field—Kleberg

Humble Oil & Refining Co.'s No. 4 Flato, Block 10, Section 40, 250 feet east line, 450 feet north line, at 6,772 feet, drilling ahead.

Cartwright Field—Live Oak

Houston Oil Co.'s No. 2 J. B. Dunning, M. B. Kilvin Survey, 1,445 feet north of No. 1, location.

Rockdale Field—Milam

Texas Petroleum Development Co.'s No. 1 Milton Phillips 80-acre J. J. Chambers Survey, in center of Rockdale Pool, 600 feet north of No. 14, rigging up, to make first Edwards lime test inside the pool.

Agua Dulce Field—Nueces

Agua Dulce Oil & Gas Co.'s No. 1 Otto Wolters, Section 34, Benton's Pasture Survey, at 2,047 feet, standing; No. 1 Bessie Kerr, Benton's Pasture Subdivision, 150 feet north line, 700 feet east line of Section 36, has spudded in. R. & G. Corp.'s No. 1 Brown, George H. Paul Subdivision, C SE NW, Section 87, location.

White Point Field—San Patricio

Spencer & Rhodes' No. 2 Texas Company Fee, Lot 6, Roos Subdivision, 150 feet south and west lines of W 50 acres, is standing.

Nursery Field—Victoria

Humble Oil & Refining Co.'s No. 3-A Jay J. Welder, D.L.&C. Survey, 1,634 feet southeast lines, 736 feet southwest lines, at 4,542 feet, in sandy shale, drilling.

SOUTHWEST TEXAS

Branyon	36
Bruner	43,324
Dale	570
Darst Creek	1,202
Kingsville	514
Larremore	164
Luling	11,053
Lytton Springs	996
McMullen County	45
Medina County	23
Mirando	10,065
Somerset	1,772
Yoast	1,124
Total	70,888
Week ending Sept. 7	73,533
Decrease	2,645

PRODUCERS COMPLETED

Caldwell County

Humble Oil & Refining Co.'s No. 1-B J. L. Northcut; total depth 2,687 feet; initial production 2,500 bbls.

Humble Oil & Refining Co.'s No. 13-B Moses-Baggett, James Hinds Survey; total depth 2,690 feet; 300 bbls.

Humble Oil & Refining Co. and Luling Oil & Gas Co.'s No. 7 C. F. Dye, James Hinds Survey; total depth 2,692 feet; 300 bbls.

Humble Oil & Refining Co. and Luling Oil & Gas Co.'s No. 6-A Floy Gray; total depth 2,683 feet; 100 bbls.

Humble Oil & Refining Co.'s No. 8-A Floy Gray, James Hinds Survey; total depth 2,673 feet; 250 bbls. oil, 150 bbls. water.

Humble Oil & Refining Co. and Luling Oil & Gas Co.'s No. 6-C Floy Gray, James Hinds Survey; total depth 2,690 feet; 50 bbls.

Humble Oil & Refining Co. and Luling Oil & Gas Co.'s No. 7-C Floy Gray, James Hinds Survey; total depth 2,671 feet; 600 bbls.

Humble Oil & Refining Co. and Luling Oil & Gas Co.'s No. 7 T. A. Tiller, James Hinds Survey; total depth 2,667 feet; 300 bbls.

Magnolia Petroleum Co.'s No. 1 Mattie Merriwether, A. Floyd Survey; total depth 2,554 feet. This test was reported last week from other sources as dry and abandoned but is reported by the Magnolia Petroleum Co. as pumping 100 bbls.

The Texas Company's No. 1 Cude, William Spiller Survey; total depth 1,838 feet; pumping 200 bbls. per day.

Duval County

S. & O. Oil Co.'s No. 8 Hahl, Survey 25, Block 22; total depth 2,332 feet; flowing 250 bbls.

Live Oak County

Houston Oil Co.'s No. 2-A Brown, M. B. Kilvin Survey. Total depth 2,111 feet. Completed dry gas well. Estimate 40,000,000 feet gas; 825 pounds rock pressure.

Webb County

John J. O'Hern's No. 1 Valdez, Survey 754; total depth 2,318 feet; 40,000,000 feet gas; 590 pounds rock pressure.

O. W. Killam's No. 12 Bruni, Survey 3; total depth 2,353 feet; 30,000,000 feet gas.

Magnolia Petroleum Co.'s No. 1 C. Benavides, Survey 662; total depth 2,304-22 feet; 40,000,000 feet gas; 750 pounds rock pressure.

Trapshooter Reilly Oil & Royalties Co.'s No. 2 Benavides, Survey 685; total depth 3,066 feet; 80 bbls.

ABANDONED TESTS

Caldwell County

E. R. Brawn and C. O. Miller's No. 2 R. W. Carter, Gerren Hinds Survey; total depth 2,680 feet; abandoned.

T. C. Hadley's No. 4 Merriwether; total depth 2,760 feet; plugged and abandoned.

Duval County

Humble Oil & Refining Co.'s No. 22 Kohler, Survey 395; total depth 1,854 feet; abandoned.

Magnolia Petroleum Co.'s No. 7-B Hahl, Survey 61; total depth 5,370 feet; abandoned.

NEW LOCATIONS

Caldwell County

Humble Oil & Refining Co.'s No. 5-A M. Briscoe, James Hinds Survey; 200 feet north line, 485 feet west line; location.

Humble Oil & Refining Co.'s No. 8 C. F. Dye; location.

Humble Oil & Refining Co.'s No. 8 T. A. Tiller; location.

Duval County

Humble Oil & Refining Co.'s No. 35 Kohler, Survey 165; located 330 feet south and east lines; location.

Humble Oil & Refining Co.'s No. 36 Kohler, Survey 424; located 330 feet north and east lines; location.

Guadalupe County

H. H. Weinert's No. 1 A. E. Dowdy, Jacob C. Darst Survey; 100 feet south line, 36 feet east line; location.

H. H. Weinert's No. 2 A. E. Dowdy, Jacob C. Darst Survey, 100 feet north line, 36 feet east line; location.

Jim Hogg County

W. R. Shankle's No. 2 Holbein, Las Animas Block 11, Share 3; 150 feet north line, 450 feet west line; location.

San Patricio County

LaFeria Oil & Gas Co.'s No. 1 C. C. Smith, J. C. White Survey; 690 feet north line, 350 feet east line; location.

Webb County

O. W. Killam's No. 13 Bruni lands, Mariano Arispe Grant; 491 feet southwest line, 200 feet southeast line, Block 1; moving on.

W. R. Shankle's No. 2 Webster, Survey 684; located 1,170 feet west line, 150 feet south line; rigging up.

Zapata County

V. F. Blankenship's No. 1 Garza, Survey 64, Block 7; 150 feet north and east lines; total depth 50 feet; drilling.

O. W. Killam's No. 16 Cuellar; 165 feet southeast line, 838 feet southwest of 160-acre Cuellar tract out of 1,772-acre tract, Cerrito Blanco Grant; spudded in.

ROLLING MILL MAKES RECORD

At midnight, August 8, the East Works plant of the Middletown division of the American Rolling Mill Co., Middletown, Ohio, had completed 1,158,000 man-hours without a lost time accident. This is 45 consecutive days for over 3,700 men. It is believed to be a world record for a steel plant.

WILDCAT OPERATIONS IN SOUTHWEST TEXAS

(Continued from Page 59)

Mission Drlg. Co.'s No. 3 Roy Rand, 3 miles E of No. 2. This formerly carried in Bee County, Pettus Pool....4,070 ft.; swabbing small amount of oil.
Western Union Oil Co.'s No. 1 Lucas, Juan Moya y Delgado Sur. ....Location.

GONZALES COUNTY

Adams & Lyles' No. 1, Jackson Sur. ....Drlg. 1,800 ft.
Joe Bruner's No. 1 R. D. and J. C. Miller....Shut down 3,000 ft.
Crown Petroleum Co.'s No. 1 Hattenback ....Shut down 2,330 ft.
Finnell & Elam's No. 1 Robinson, Liverpool Survey....Drlg. 1,400 ft.
Hoffman and others' No. 1 Booker, J. Stewart Sur....Shut down 410 ft.
Grayburg Oil Co.'s No. 1 Wells, La Baume Sur. ....This test carried in Guadalupe Co.
Marshall & Moore's No. 1 St. Clair, R. H. Wymn Sur....Drlg. 1,700 ft.; steel derrick up.
L. L. Jones' No. 1 J. F. Kindred, W. W. Barnes Sur., 700 ft. W line, 1,000 ft. S line ....Location.
Linderman Brothers' No. 1 F. H. Frampton....Shut down 1,160 ft.
Fort Bend Oil Co.'s No. 1 C. E. Ham....3,300 ft.; out of water.
Frank Sorrell's No. 2 Wilkenson....Standing 174 ft.
A. G. Kifer's No. 1 B. B. Dix ....Drlg. 2,006 ft.

GUADALUPE COUNTY

All State Petroleum Co.'s No. 1 Powers, Robert Cartwright Sur. ....Drlg. 1,740 ft.
J. O. Dore's No. 1 Appling, H. Cottlebur ....Location
Grayburg Oil Co.'s No. 1 Wells, Jose La Bume Sur. ....Rigging up.
Sights' No. 1 Berring Green, DeWitt Sur. ....Derrick.
L. W. Stieren's No. 1 S. H. Herman, Ragsdale Survey....Shut down 1,233 ft.
Adams-Lyles-Walton's No. 1 Zoluroski Jesus Cantu Sur..Corrected depth 953 ft.; standing.

HAYS COUNTY

E. A. Bucklin's No. 1 ....Set casing 540 ft.

JACKSON COUNTY

Wright Bros.' No. 6 Drushell ....Waiting orders 2,650 ft.
Wright Bros.' No. 7 Drushell ....3,875-ft. drill stem test showed strong flow dry gas.

JIM HOGG COUNTY

Deep Rock Oil Co.'s No. 1 Kelsey ....Drlg. 1,350 ft.

JIM WELLS COUNTY

E. W. Ogden's No. 1 G. Farris, M. Perez Sur....Drlg. 1,617 ft.
Magnolia Pet. Co.'s No. 1 C. Cook, W. H. Sartain Sur., Blk. 45 ....Drlg. 2,056 ft.

KARNES COUNTY

Benedum-Trees' No. 1 S. E. Crews, Britton Odem Sur. ....Spudding in.
G. G. Fisher et al's No. 1 Barnett, 6 miles N of Karnes City ....Drlg. 2,125 ft.
Hurador Oil Co.'s No. 1 W. E. Porter....Drlg. 2,516 ft.

KERR COUNTY

L. R. Page and Associates' No. 1 Real ....Shut down 3,671 ft.

KENDALL COUNTY

E. L. Maddox-Powers' No. 1 Haag, W. Avery Sur. ....Location.

KIMBLE COUNTY

Carl L. Bryant's No. 1 C. E. Lambert ....Drlg. 150 ft.
H. A. McLean & Jamison's No. 1 R. F. Cannon....Shut down 995 ft.
J. B. Lindsay's No. 1 G. C. Anderson ....Drlg. 785 ft.

KINNEY COUNTY

Lloyd Oil Co.'s No. 1 G. B. Moore, Survey 117....Drlg. 2,200 ft.

LASALLE COUNTY

J. G. Nix's No. 1 Coleman, Survey 68....Temp. aband. 500 ft.

LIVE OAK COUNTY

J. P. Lightfoot's No. 1 Lewis ....Drlg. 815 ft., shale.
Dr. Frank Lynch's No. 1 Secrest, Simmons Tracts ....Drlg. 770 ft.

MAVERICK COUNTY

Ryan Consolidated Petroleum Co.'s No. 2 Indio Ranch....Drlg. 5,270 ft.
Rycade Oil Corp.'s No. 3 Chittim ....Drlg. 5,470 ft.
Rycade Oil Corp.'s No. 4 J. M. Chittim....Drlg. 5,385 ft.
Rycade Oil Corp.'s No. 4 Sullivan ....Drlg. 5,320 ft.
Rycade Oil Corp.'s No. 5 Chittim ....Clearing land for rig.
The Texas Company, 5 miles west Darling Switch....Drlg. 1,880 ft.

MEDINA COUNTY

R. C. Hill's No. 1 A. Wuezbach, G. Areola Sur., 500 ft. E line, 600 ft. S line ....Location.
California-Medina's No. 1 Rothe ....Drlg. 3,426 ft.
A. U. Skogland's No. 1 Soothof, A. Smelzer No. 19 Sur. ..Moving in rig.
Trapshooter Reilly Oil & Royalties Co.'s No. 1 Adams, L. Fritz Sur. ....Dry and aband. 1,209 ft.

MILAM COUNTY

E. L. Chapman's No. 2 Johnson, J. J. Acosta Sur. ....Location.
McCormick & Noack's No. 3 Skelton, Wm. Allen Sur....Location.
I. P. Sessions' No. 7 J. Bauer, T. J. Chambers Sur. ....Location.
J. M. Burkhead's No. 1 C. Weigham ....Drlg. 1,967 ft.
E. L. Chapman's No. 1 Johnson, J. J. Acosta Sur....Shut down 1,385 ft.
E. L. Chapman's No. 1 E. G. Knight ....Shut down 1,970 ft.
Diggs and others' No. 1 Nolen ....Derrick.
Hill & Bonwell's No. 1 B. Booher, James Welch Survey..Drill stem stuck, 2,007 ft.
Lloyd Oil Corp.'s No. 1 Camp, Acosta Sur....Derrick.
Lloyd Oil Corp.'s No. 1 San Clement, Fakes Sur....Spudded in.
Wilson and others' No. 1 Johnson & Stiles....Location.
J. W. Stiff's No. 1 M. Winston, J. Leal Sur....Location.
A. H. Wray's No. 1 D. D. Fowler....Drlg. 964 ft.

McMULLEN COUNTY

Natt Holman's No. 1 Shiner, H. M. Brewer Survey ....Drlg. 1,515 ft.

NUECES COUNTY

Nueces River Basin Dev. Co.'s No. 1 F. C. Allen....Drlg. 2,812 ft.
Pearson and others' No. 1 Bluntzer ....Standing 3,507 ft.
R. & G. Corp.'s No. 1 Elmily Wright Perkins....Standing 3,510 ft.
R. & G. Corp.'s No. 1 Roberts....Location.
R. & G. Corp.'s No. 1 Ragland....Standing 3,002 ft.
Trinity Drillers and Sun Co.'s No. 1 Tompkins....Drlg. 2,403 ft.

SAN PATRICIO COUNTY

Magnolia Petroleum Co.'s No. 1 C. Freeman, Sec. 57....Drlg. 4,405 ft.
Houston Gulf Gas Co.'s No. 3 Welder ....Drlg. 5,098 ft.

STARR COUNTY

The Texas Company's No. 4-A V. G. Guerra, Porcion 67, Share 305-D ....Location.
Smith & Adams' No. 1 Welch, Pedernal Sur....Drlg. 531 ft.
Ohio Oil Co.'s No. 1 Bass, Por. 76, Blk. 71....Drilling.
Milam Drlg. Co.'s No. 5 R. Allen, Blk. 147....Location.
U. S. Oil & Gas Co.'s No. 1 Kelsey, Por. 76, Blk. 11....Standing.

TRAVIS COUNTY

J. W. Allen's No. 1 McAngus, Westbrook Sur....Aband. 1,350 ft.

WEBB COUNTY

G. S. Lumpkin's No. 1 H. Yeager, Por. 33-34-35....Location.
Usher Carson's No. 2 D. Benavides, Sur. 1,613....Shut down 2,515 ft.

WILLIAMSON COUNTY

Ray Oil Co.'s No. 1 W. J. Fouse, W. Donoho Sur. ....Location.
W. J. Harlan's No. 1 J. V. Stile, J. Bevil Sur., 600 ft. N line, 900 ft. E line ....Location.
F. M. Moss et al's No. 1 Kreuger, W. Cartwright Sur., SW cor. ....Location.
J. C. Hawkins, 1½ miles northwest discovery well....Location.

WILSON COUNTY

R. M. Sherer's No. 1 Tummilson, A. Trevena Sur....Drlg. 457 ft.
Grayburg Oil Co.'s No. 1 Tigler, Parrott Sur....Drlg. 2,404 ft.
R. M. Sherer's No. 1 First State Bank of Stockdale, Moran Sur. ....Drlg. 220 ft.

ZAPATA COUNTY

John Pappas' No. 2 Cuellar, Por. 33 and 34 ....Location.
Hill et al's No. 1 A. O. de Vela, Blk. 30, El Grullo Sur. ....Rigging up.
National Oil Co.'s No. 1 D. B. Adams ....Standing 690 ft.
Buck & Coursey's No. 1 Garza, Blk. 47 ....Drlg. 1,474 ft.
Buck & Coursey's No. 1 Trevino, Sur. 1 ....Drlg. 1,391 ft.

ZAVALA COUNTY

Tritex Oil Co.'s No. 1 Clay Burns ....Drlg. 780 ft.
Tritex Oil Co.'s No. 4 West ....Drlg. 795 ft.
Tritex Oil Co.'s No. 1 Childress ....Drlg. 1,095 ft.

KANSAS FIELDS

(Continued from Page 52)

5 Hout, SW cor. SE SW, Section 11-24-12. The Prairie Oil & Gas Co. made location for No. 4 S. Johnson, SW cor., Section 15-24-12. Location has been made for No. 1 Hunt, NE cor. SW, Section 22-24-12. No. 4 Webber is a location CNL NW SE, Section 9-25-13.

The Texas Company's No. 4 Edwards "C", NW cor. SW SE, Section 21-23-11, has been completed for 300 bbls. in sand 1,873-1,963 feet. Sullivan & Mellrose's No. 1 Pegram, SW cor. NW, Section 33-23-13, is dry and abandoned at 1,722 feet. Mid-Continent Petroleum Corp.'s No. 14 Sullivan, CWL NE NW, Section 14-24-12, made 16 bbls. in sand 1,738-53 feet. The Prairie Oil & Gas Co.'s No. 1 Rebecca, SW cor. NE NW, Section 16-24-12, has been completed for 40 bbls. at 1,508 feet in Bartlesville sand. O. V. Paul and others' No. 1 Cross, SW cor., Section 6-27-11, is a dry hole at 2,406 feet.

Lyon County

H. C. Mortlock made location for No. 1 Dubolt, NW cor. NE, Section 24-20-11. Gordon & Statts' No. 1 Murphy, NE cor. NW, Section 32-21-11, has been abandoned at 2,140 feet.

Morris County

General Utilities Co. is moving the rig in for No. 2 Southwick, SE cor. NE SW, Section 14-16-7. Loomis and others' No. 1 Shrader, C SE SW, Section 15-16-7, is drilling at 140 feet.

McPherson County

McPherson Oil & Gas Development Co. moved the rig in for No. 1 Fisk, SW cor. NE NE, Section 15-21-2w.

Pratt County

Wilcox Oil & Gas Co. is building the rig for No. 1 Battin, SW cor. NW, Section 7-26-15w.

Phillips County

Watsonian Oil Co.'s No. 1 Weinman, C SW SW, Section 34-2-19w, is dry and abandoned at 4,005 feet.

Reno County

Austin and others' No. 1 Castleton, NE cor. NW SW, Section 3-26-5w, is a cellar.

Riley County

Arkansas Fuel Oil Co. has the rig on the ground for No. 1 Martin, SE cor. NE SW, Section 24-8-4.

Russell County

The Texas Company's No. 2 Jacobs, NW cor. SW SW, Section 31-12-15w, is a rig.

Sedgwick County

Shell Petroleum Corp. is erecting the rig for No. 2 Lygrisse "B", SW cor. SE NW SW, Section 15-26-2, Greenwich Pool. Brandeberry and Shell Petroleum Corp.'s No. 1 Stollie, NW cor. SE SW SW, Section 15-26-2, Lot 8, Block 5, Greenwich Townsite, is a rig on the ground. George Dickey is building the rig for No. 1 Robbins, NE cor. SE SE, Section 20-28-1. Barnsdall Oil Co.'s No. 1 Parks, SW cor. SE, Section 13-25-1, has been abandoned at 3,073 feet. Continental Oil Co.'s No. 1 Westerfield, NW cor. SE SW, Section 16-25-1, made 10 bbls. in sand at 3,335 feet. Wentz Oil Corp.'s No. 2 S. Bright, SE cor. NW Section 1-26-1w, Valley Center Pool, has been completed for 720 bbls. in sand 3,336-37 feet. Shell Petroleum Corp.'s No. 1 Brown, NE cor. NW SE SW, Section 15-26-2, made 2,142 bbls. in sand 2,902-05½ feet. John Rogers and others' No. 1 Stollie, SE cor. NW SE SW, Section 15-26-2, Lot 22, Block 7, Greenwich Townsite, has been completed for 1,026 bbls. in chat 2,930-32 feet. George L. Miller and Wentz Oil Corp.'s No. 1 Schaffer, NW cor. NE, Section 9-27-2w, is dry and abandoned at 4,069 feet. The Prairie Oil & Gas Co.'s No. 1 Black, NW cor. SW NE, Section 21-25-1, is a dry hole at 3,505 feet.

Shawnee County

Omar Oil & Gas Co.'s No. 1 Allen, NE cor. SE NW, Section 2-11-14, is drilling at 1,400 feet.

Sumner County

Champlin Oil & Refining Co.'s No. 4 Love, SE cor. NW SW, Section 9-30-2w, has been completed for 500,000 feet of gas in sand 2,442-49 feet. Ray Otstot and others' No. 1 Rex, SE cor., Section 22-33-23w, made 15 bbls. in sand 3,900-4,000 feet after plugging back from 4,512 feet.

Sheridan County

Madolin Oil Co. has the rig up for No. 1 Johnson, SE cor. SW SW, Section 27-7-26w.

Trego County

Dixie Oil Co. and Amerada Petroleum Corp. made location for No. 1 Reitmeyer, C NE NE, Section 19-14-21w.

Sedgwick County Production

The daily average production by companies and leases in the Sedgwick County area for the week ending September 13, is shown by the following:

County, lease—	S.T.R	Wells	Bbls.
Aladdin:			
Bennington	6-26-1	3	375
Barnsdall:			
Rapp	26-26-2	1	Off
Samuel	24-25-1	1	Off
Bu-Vi-Bar et al:			
Branch	6-26-1	2	665
Bright "A"	6-26-1	2	203
Bright "B"	6-26-1	5	1,467
Byers	7-26-1	1	127
Emrich	6-26-1	2	711
T. Goodrich	6-26-1	5	283
Lantz	12-26-1w	3	416
Corr	1-26-1w	8	3,295
Lyons	7-26-1e	3	498
Miles	7-26-1	1	7
Reed	1-26-11w	3	2,632
Rpll	7-26-1e	1	10
Ro hfuss	6-26-1e	1	6
Shawver	7-26-1e	9	5,890
Wright	12-26-1w	7	3,362
Woodward	7-26-1e	1	314
Connell:			
Cross	27-25-1w	1	11
Continental:			
Goodrich	16-25-1e	2	1,052
No. 1 Black	16-25-1	1	30
Westerfield	16-25-1	1	14
Davis-Skelly:			
Wilson	1-26-1w	13	2,940
T. M. Deal:			
No. 1 Townsite	15-26-1	1	245
Derby:			
Bowling	6-26-1e	1	45
Gorman	6-26-1e	4	355
Hladick	15-26-1	1	251
Dickey et al:			
Robbins	21-28-1e	1	240
Dickey:			
Nolan	21-28-1	1	55
Gypsy:			
Hammant	14-26-2e	3	299
W. F. Kinney:			
Richards	15-26-2e	1	633
Mars Oil Co.:			
Miller	2-26-2	1	41
Mary Jane:			
Fitch	6-26-1e	2	619
Montour:			
Lavender	6-26-1e	2	833
Patton & Wentz:			
Swenson	6-26-1	1	80
Phillips Pet. Co.:			
Difford	1-26-1w	3	107
Piefer	6-26-1e	1	82
Plains Oil Co.:			
No. 1 Corn	15-26-1	1	312
Prairie:			
Cross	27-25-1w	1	40
Swyser	36-24-1w	3	279
Producers & Refiners:			
Kuske	24-25-1	1	125
Pyle & Sutter:			
Caldwell	6-26-1e	2	255
Ramsey:			
Mason	15-26-1	2	730
Reynolds & Hays:			
Rolls	7-26-1	1	625
Robertson et al:			
Creson	6-26-1	1	735
Shell:			
Fisher	15-26-2	1	172
B. Lygrisse	15-26-2	1	439
Brown	15-26-1	1	1,362
C. Lygrisse	15-26-2	1	540
Shell-Continental:			
No. 1 Community	15-26-2	3	1,016
Nolan	21-28-1e	1	100
Lygrisse	22-26-2	1	70
Stearns & Streeter:			
Roll	7-26-1	1	580
Texas:			
Blood	21-28-1	1	150
Tidal:			
Scherger	6-26-1	3	105
Vickers:			
Nessen	6-26-1	3	140
Wentz:			
No. 1 Bright	1-26-1w	1	848
White Eagle:			
Baylor	6-26-1	1	10
Robbins	20-28-1	2	240
Rogers:			
Johndro	15-26-2	1	410
Stollie	15-26-2	1	540
Kenny:			
Tripp	15-26-2	1	345
E. W. Marland et al:			
Mackey	30-27-2	1	65
Total		137	37,026

LOUISIANA-ARKANSAS

(Continued from Page 62)

made a deep test, 4,000-4,500 feet probably.

Monroe District

Monroe district completions during the week were J. S. Harkness' No. 8 Bowles, Section 18-20-5, Morehouse Parish, 1,500,000 feet of gas at 2,230 feet; Southern Carbon Co.'s No. 11 Tensas, Section 37-21-4, Morehouse Parish, 7,654,000 feet at 2,153 feet; Mack & Pipes' No. 1 Slagle & Johnson, Section 48-18-4, Ouachita Parish, 3,861,000 feet at 1,020 feet, total depth 2,177 feet and Ouachita Natural Gas Co.'s No. 2 D'Arbonne, Section 25-19-2e, abandoned at 3,349 feet. This well, a wildcat southeast of Monroe, had been under water for most of the year, shutting down at 3,349 feet last December and revived again late last month since when it has resisted all efforts to get back in with drill stem and clean out to any advantage.

A. H. Tarver has abandoned No. 2 Long-Bell in Section 18-8-15, Zwolla district of Sabine Parish, and has a fishing job on No. 1 in Section 29-8-13, where drill stem twisted off, total depth 3,535 feet. R. L. Gay's two producers in that district No. 2 Bowman-Hicks in Section 14-7-14 and No. 3 same lease and section, are still growing, No. 2 running 140 bbls., and the other 60. The first started off with 50 bbls. last December and the second with 10 bbls. late in May.

Beside the Magnolia Petroleum Co.'s big gasser Webster Parish had a small producer, J. W. Clark's No. 1 Roseberry in Section 33-23-9, Shongaloo district, which started pumping 25 bbls from 2,767 feet. F. M. Fuller has interested the Gulf Refining Co. in his Webster Parish wildcat, No. 1 Monzingo in Section 27-18-8, south of Minden, to the extent of $4,000 dry hole money to be paid when the hole is begun, reaches 1,500 feet, 2,500 feet and 3,000 feet. The Gulf's interest is predicated on results of the extensive geophysical work done by it in that area last spring which indicated possibilities of a third salt dome in the vicinity situated much lower than the two known domes on either side of Fuller's block.

West Carroll Parish

Palmer Corp. made location for No. 1 Marston in the SW NE Section 12-19-10, West Carroll Parish, its third test in that parish, about 2 miles southwest of No. 1 O'Brien in Section 7-19-11 East Carroll Parish, which gauged 51,119,000 feet of gas at 1,040 pounds with 1,000 bbls. of salt water from five feet of sand 2,354 feet in May last year. It was the first of a series of five tests drilled in the immediate vicinity in that parish three of the remainder being failures and the fourth, No. 2 O'Brien in Section 6-19-11 gauging 31,010,000 feet of gas at 1,050 pounds from 2,337 feet followed in April this year.

Of four completions during the week in Smackover, three were old wells plugged back from the deeper sands and perforated for small production accompanied by much salt water. Imperial Oil & Gas Products Co.'s No. 2 Murph, in Section 9-16-15 made 28 bbls. oil and 250 water from 2,345 feet; Sinclair Oil Co.'s No. 16 Berry, Section 33-15-15, made 150 bbls. from 1,998-2,008 feet; The Texas Company's No. 11 Johnson, Section 3-16-15, made 146 bbls. oil and 126 water from 1,975 feet and Phillips Petroleum Co.'s No. 1 Clayton, a new well in Section 34-15-15, pumped 10 bbls. oil and 20 of water from 2,035 feet In the Champagnolle district of Union County O. W. Estes abandoned location for No. 1 Hargett, Section 13-17-14, and for No. 1 Ramsey, Section, 24-17-14.

Mount Holly

Joe Modisette and others' No. 1 Union Sawmill, a wildcat in Section 1-18-14, south of Champagnolle, hit salt water at 3,320 feet and was abandoned. Timberlake and others' No. 1 Wright, Section 25-14-18, 6 miles north of Mount Holly production, was abandoned at 2,907 feet. It was high on the red beds topped at 2,625 feet, but got salt water at 2,830 and 2,850 feet. It is understood that a second well is to be drilled a mile west.

Houston Oil Co.'s No. 2-A Wilson Section 25-15-18, Mount Holly, was put on the pump making 300 bbls. initial, but sanded up a day or two later and is cleaning out. E. M. Jones has shut down No. 1-A Wilson, Section 26-15-18, at 3,000 feet and is trying to refinance it to 4,000 feet. If he does not, he plans a second well to the 2,700-foot horizon in the SE cor. of the section, across the "40" from this one, which found the Nacatoch high, but full of water and only a few inches thick. The five wells in the pool produced 900 bbls. daily on last gauge. Arpeco Syndicate abandoned No. 1 Dennis, Section 11-20-23, Columbia County on account of salt water at 3,696 feet.

NORTH ARKANSAS

In north Arkansas Letona Syndicate hit black greasy looking shale at 3,490 feet in No. 1 Letona, Section 35-9-8, White County, and had made 10 feet in it when it started caving. If they can get by it and keep the hole clean long enough they will set another string of pipe, 4½ inch. All blocks in the Arkansas River valley taken by the Chester Oil Co., of Chicago have been assigned to the Palmer Corp. There are four of these blocks aggregating 35,000 acres; one of 7,500 acres centering approximately on Section 31-11-12, Cleburne County; 3,000 acres centering on Section 17-8-14 and one of 13,000 acres on Section 6-9-14, Conway County and one of 12,000 acres centering on Section 5-10-14, Van Buren County. In addition, Palmer Corp. is reported to have taken another block of 20,000 acres in Township 6, Ranges 6, 7, 8 and 9, White County. In Pulaski County, Wonder State Development Co., drilling on the Wilson farm, 6 miles east of Little Rock in Section 21-2-11, hit granite at 1,420 feet and abandoned the hole.

Two small gas wells were completed in the Bethany Field of Panola County, Texas, T. C. Adams and others' No. 1 Adams, Thomas Cox survey, 1,000,000 feet at 970 feet and Ark-La. Pipe Line Co.'s No. 1 Brumble, a workover in the B. C. Jordan survey, the same amount of gas at 2,320 feet.

ALABAMA

Robinson & Greer, drilling No. 1 Douglas Oil Co. in Section 15-9-2w, Choctaw County, Alabama, their second test on the Hatchetigbee anticline, cored from 2,040-48 feet, developing the fact that the Ripley which averages 150 feet in thickness is entirely absent as the top of the core was in the Midway and the bottom in Selma chalk. On a surface elevation of 88 feet the hole is checking, on this evidence, 320 feet higher than their first well in Section 28-10-4w, Choctaw County, in which they had some sand showing oil but it was abandoned as a salt water well at 3,900 feet.

Gulf Refining Co. is at work on its fifth core test in this area. The first was drilled to below 1,300 feet and got water and the next three were shallow holes.

Daily Average Production

Daily average runs from the field dropped 505 bbls. to a total of 101,045, Louisiana runs of 35,165 being 405 bbls. less than the week before and Arkansas' 65,880 bbls., 100 less than last week's The greatest differences were in Urania and Champagnolle, which declined 285 and 490 bbls. respectively and in Smackover heavy which gained 390 bbls. Runs from the several pools were:

Louisiana	
Caddo, light	9,080
Caddo, heavy	3,285
Homer	3,855
Haynesville	4,930
DeSoto-Red River	3,170
Elm Grove	535
Bellevue	620
Cotton Valley	2,310
Urania	6,050
Pleasant Hill	1,040
Sarepta	300
Total	35,165
Arkansas	
El Dorado	4,600
Smackover, light	6,020
Smackover, heavy	46,150
Stephens	980
Nevada County	990
Lisbon	1,245
Champagnolle	5,810
Bradley	55
Total	65,880
Both states	101,045
Last week	101,650
Decline	505

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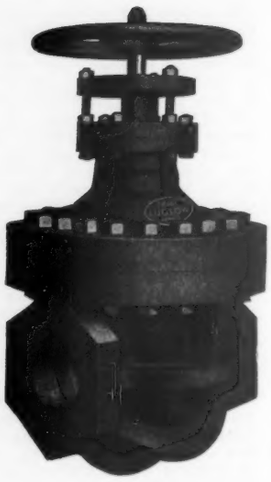

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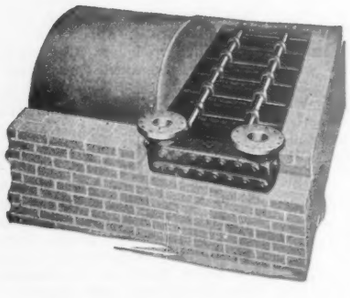

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NEW
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WILDCAT OPERATIONS IN LOUISIANA-ARKANSAS

(Continued from Page 62)

Triangle Drlg. Co.'s No. 1 Kilpatrick, 660 ft. S, 660 ft. E, NW cor. SW NE, Sec. 7-19-5 ..... Location.

DESOTO PARISH

P. J. Becker, trustee's No. 1 Tull, SW cor. NE NE, Sec. 23-12-15 ..... Fishing 7 joints drill stem; T.D. 2,475 ft.

Longstreet Synd.'s No. 1 Ramsey, NE cor. SW NE, Sec. 33-13-16 ..... Changing to heavy rig and arranging to sidetrack; T.D. 2,802 ft.

Fair et als' No. 1 Hamilton, 500 ft. N, 300 ft. W, SE cor. SE SE, Sec. 1-12-13 ..... Tested 500,000 ft. gas and S.W. 2,793 ft; W.O. 2,855 ft.

Magnolia Pet. Co.'s No. 1 Anna Mason, 990 ft. S, 990 ft. E, NW cor. SW, Sec. 27-12-11 ..... Location.

Magnolia Pet. Co.'s No. 2 W. H. Mason, 330 ft. N and W, C, Sec. 28-12-11 ..... Cored brown shale; T.D. 3,118 ft.

S. O. Roy's No. 1 Rogers, Sec. 12-13-14 ..... Drlg. 2,755 ft.

FRANKLIN PARISH

Davis et als' No. 1 Moore, 600 ft. W, 200 ft. S, NE cor. Sec. 12-11-6 ..... S.D. 1,430 ft.

LASALLE PARISH

Tunica Pet. Co.'s No. 49 L. & A., 600 ft. S, 300 ft. W, NE cor., Sec. 17-7-2e ..... Standing 200 ft oil; W.O.S.R; T. D. 822 ft.

Tunica Pet. Co.'s No. 50 L. & A., 200 ft. N, 660 ft. E, SW cor. NW, Sec. 16-7-2e ..... Cmtd. 10-in. 49 ft; drlg. 650 ft.

Tunica Pet. Co.'s No. 51 L. & A., 660 ft. N, 200 ft. E, SW cor. NW, Sec. 16-7-2e ..... Cmtd. 6-in. 800 ft; 9 ft. sand; T. D.810 ft.

MOREHOUSE PARISH

J. P. White's No. 1 Chess-Wymond, Sec. 32-19-6 ..... Tested S.W. 2,916 ft; drlg. 2,920 ft.

Rainbow Oil Co.'s No. 1 Louisville Cooperage Co., 990 ft. S and E, NW cor. NE, Sec. 33-22-8 ..... Derrick.

NATCHITOCHES PARISH

S. D. McDaniel's No. 2 Clark & Morse, 800 ft. E, 350 ft. N, C, Sec. 23-5-6 ..... Tested 1,000,000 ft. gas and S.W. 8 ft; S.D. for orders; T.D. 2,536 ft.

Nichols & Wilder's No. 1 Clark, 150 ft. W, 250 ft. N, SE cor., Sec. 10-10-8 ..... Rigging up.

Robeline O. & G. Co.'s No. 1, NE SW, Sec. 7-8-9 ..... Drill stem stuck; waiting orders; claim show gas; T.D. 3,230 ft.

OUACHITA PARISH

Farish & Russell's No. 1 School fee, NE, Sec. 16-16-4 .. S.D.; W.O. 4,350 ft.

RAPIDES PARISH

Ayers Bros.' No. 1 Wickliff, 2,790 ft. N, 150 ft. E, SW cor., Sec. 9-5n-2e ..... Began drlg. Sept. 7; drlg. 100 ft.

RED RIVER PARISH

W. D. Ball's No. 1 Krumholtz, 660 ft. S, 660 ft. E, NW cor., Sec. 32-14-10 ..... Rigging up.

Benedum & Trees Oil Co.'s No. 1 Franklin Realty Co., 350 ft. E. 350 ft. S, NW cor., Sec. 29-11-9 ..... Drlg. 2,760 ft.

Eylers O. & G. Co.'s No. 4 Chaffraix, 150 ft. S, 170 ft. W, NE cor. SW SE, Sec. 30-12-10 ..... Rigging up.

LeGrande et als' No. 1 Sample, Sec. 11-14-11 ..... Rigging up.

D. H. Riddick's No. 1 Johnson, 500 ft. N, 500 ft. W, SE cor., Sec. 17-12-10 ..... Rigging up.

RICHLAND PARISH

Austin & McDonald's No. 2 Millsaps, SW cor., Sec. 17-17-6. Waiting orders; T.D. 2,679 ft.

Austin & McDonald's No. 3 Millsaps, 1,980 ft. S, 660 ft. E, NW cor., Sec. 16-17-6 ..... Tested dry 2,460 ft; T.D.; W.O.

Austin & McDonald's No. 4 Millsaps, NW cor., Sec. 16-17-6. Location.

Austin & McDonald's No. 5 Millsaps, 2,640 ft. N, 1,320 ft. W, SE cor., Sec. 8-17-6 ..... Derrick.

Palmer Corp.'s No. 2 Miles, 723 ft. E, 660 ft. S, NW cor. NE, Sec. 13-17-6 ..... Cmtd. 6-in. 2,315 ft.

United Carbon Co.'s No. 1 Thornby, 660 ft. W, 650 ft. N, SE cor. NW NE, Sec. 13-16-6 ..... Drlg. 1,600 ft.

SABINE PARISH

R. L. Gay's No. 1-A Bowman-Hicks, 900 ft. S, 300 ft. E, C, Sec. 34-8-12 ..... Rigging up.

R. L. Gay, trustee's No. 4 Bowman-Hicks, SE cor. NW SE, Sec. 14-7-14 ..... Drlg. chalk 2,263 ft.

R. L. Gay, trustee's No. 1 Long-Bell Lbr. Co., NE cor. NW NW, Sec. 26-8-14 ..... S.D. 3,200 ft.

R. L. Gay, trustee's No. 2 Sabine Lbr. Co., Sec. 23-7-14 .. Fishing for drill stem; T.D. 2,535 ft.

A. H. Tarver's No. 1 Long-Bell Lbr. Co., NW cor. SW NW, Sec. 29-8-13 ..... Arranging to set 6⅝-in.; T.D. 3,535 ft.

WEBSTER PARISH

F. M. Fuller's No. 1 Monzingo, 200 ft. N, 200 ft. W, SE cor., Sec. 27-18-8 ..... Derrick.

WEST CARROLL PARISH

H. L. Hunt's No. 1 Chickasaw Imp. Co., NE cor. NE, Sec. 24-23-11 ..... Drlg. green sandy shale (Cane River) 1,628 ft.

Palmer Corp.'s No. 1 Marston, 3,958 ft. N, 1,855 ft. E, SW cor., Sec. 12-19-10 ..... Location.

ARKANSAS

ASHLEY COUNTY

J. G. Marcum, trustee's No. 1 McGarry, 300 ft. W, 100 ft. S, C, Sec. 9-19-4 ..... S.D. repairing rig 2,520 ft.

CLARK COUNTY

Wm. Henry, trustee's No. 1 Clark, Sec. 34-9-21 ..... S.D. 1,200 ft.

COLUMBIA COUNTY

Helena O. & G. Co.'s No. 1 Pickler, Sec. 19-19-22 ..... Drlg. 2,780 ft.

Talbot & Markle's No. 1 Copeland, 300 ft. S, 300 ft. W, NE cor. SE NW, Sec. 31-19-19 ..... Rig up.

GRANT COUNTY

Jones & Watkins' No. 1 Meek, Sec. 5-4-11 ..... T.A. 1,400 ft.

JOHNSON COUNTY

Ark.-La. P. L. Co.'s No. 2 Bynum, Sec. 12-10-24 ..... Cmtd. 6-in. 3,255 ft.

Blackwell O. & G. Co.'s No. 1 Wyver, C SW SE, Sec. 21-9-25 ..... Drlg. 5,318 ft.

LINCOLN COUNTY

Pine Prairie O. & G. Co.'s No. 1 Carter ..... T.A. 2,176 ft.

LITTLE RIVER COUNTY

A. L. Buck's No. 1 Greason, NW NW, Sec. 25-12-32..... Began drlg. Sept. 5; cmtd. 10-in 100 ft.

Grotte et als' No. 1 Allen, Sec. 31-12-31 ..... T.A. 2,941 ft.

McDonald & Shaw's No. 1 W. E. Black, 240 ft. N, 450 ft. W, SE cor. SE NE, Sec. 12-13-28 ..... Drlg. shale 1,432 ft.

LOGAN COUNTY

Ark. Nat. Gas Corp.'s No. 1 Hanna, Sec. 26-7-23 ..... Fishing for tools; T.D. 3,425 ft.

MADISON COUNTY

Phillips Pet. Co. and F. S. Craver's No 1 C. Sec. 11-14-24. Spudded Aug. 28; drlg.

MILLER COUNTY

E. B. Lenz et als' No. 1 Bossier Co., NW cor. Sec. 13-15-26. Drlg. 700 ft.

OUACHITA COUNTY

Copenhaven et als' No. 1 Warnick, Sec. 3-15-17 ..... S.D. 1,664 ft.

Plaucher et als' No 1 Buck, Sec. 7-15-17 ..... S.D. 2,465 ft.

Geo. Khouri's No. 1 A. Wilson, 150 ft. N, 150 ft. E, SW cor. N½ SW SW, Sec. 24-15-18 ..... Drlg. 2,840 ft.

Lohman et als' No. 1 Fogle, Sec. 18-14-16 ..... Drlg. 1,625 ft.

The Texas Co.'s No. 1 Avery, 250 ft. N, 250 ft. E, SW cor., Sec. 35-15-15 ..... Bailing to test 26-ft. sand; T.D. 1,971 ft.

Wesson et als' No. 1 Booth, Sec. 13-15-19 ..... S.D. 2,203 ft.

POPE COUNTY

Ark.-La. P. L. Co.'s No. 1 McFaddin, Sec. 15-9-21 ..... Rigging up cable tools.

PULASKI COUNTY

Wonder State Dev. Co.'s No. 1 Wilson, 599 ft. W, 24 ft. S, NE cor. NE SW, Sec. 21-2-11 ..... Drlg. 1,400 ft.

UNION COUNTY

Addie & Modisette's No. 1 Union Sawmill, SW cor. SW SE, Sec. 25-19-12 ..... Location.

Sam Arrendale's No. 1 Gallagher & Nelson, 200 ft. N and W, SE cor. Lot 5, Sec. 18-18-17 ..... S.D. 2,268 ft.

W. M. Coates, trustee's No. 1 McDuffie, Sec. 32-19-17 .... Cmtd. 6⅝-in. 3,942 ft; to test 4½ ft. sand; T.D. 4,057 ft.

O. W. Estes' No. 1 Ramsey, NW cor. NW SW, Sec. 24-17-14 ..... Derrick down; location abd.

O. W. Estes' No. 1 Felsenthal, 330 ft. S, 330 ft. W, NE cor. NE NW, Sec. 2-18-15 ..... Derrick.

E. M. Jones' No. 1 Hardy & Murphy, 216 ft. N, 256 ft. W, SE cor. SW, Sec. 34-19-14 ..... Drlg. 2,311 ft.

Joe Modisette's No. 1 U. S. M. Co., 1,120 ft. E, 200 ft. N, SW cor., Sec. 1-18-14 ..... Dry and abd; T.D. 3,320 ft.

McDonald Bros.' No. 1 Mayfield, Sec. 29-19-15 ..... S.D. 2,210 ft.

Stark et als' No. 1 Ainsworth, NE cor. NW NE, Sec. 8-19-16 ..... Derrick.

T. J. Woodley's No. 1 First Natl. Bank, NW cor., Sec. 34-19-18 ..... Derrick.

VAN BUREN COUNTY

Dr. J. S. Martin, trustee's No. 1 Scanlan, 200 ft. S, 200 ft. W, NE cor. SE NW, Sec. 5-9-13 ..... Drlg. 50 ft.

WASHINGTON COUNTY

O'Hara & Shetterly's No. 1 Boyd, SE cor. SE NE, Sec. 12-16-32 ..... Spudded Sept., 1928; S.D. 140 ft; resumed drlg. Aug. 25; U.R.; T.D. 150 ft.

C. H. Willoughby's No. 1 Jones, Sec. 34-16-30 ..... Cmtd. 6-in. 1,320 ft; S.D. 1,343 ft.

Lincoln Leaseholding Synd.'s No. 1 Lincoln, Sec. 30-15-32. S.D. 1,040 ft; repairs.

WHITE COUNTY

Letona Synd.'s No. 1 Letona, SE cor. NW SW, Sec. 35-9-8 Drlg. black caving shale 3,490-3,500 ft.

EAST TEXAS

BOWIE COUNTY

Hooks O. & G. Co.'s No. 1 Lee Roseberry, L. T. King Sur.. Temp. abd; T.D. 3,086 ft.

CAMP COUNTY

Rogers et als' No. 1 Enfelt, R. M. Montgomery Sur. .... Tested dry 1,870 ft; S.D. 1,930 ft.

RED RIVER COUNTY

D. M. Buffington's No. 1 Hossler, E. Hughhart Sur. ..... Claim show oil and gas; S.D. 1,893 ft.

Shad Harper's No. 1 W. R. Garland, J. Wagley Sur. ..... S.D. 1,882 ft.

Johnson Pet. Co.'s No. 2 Randolph, Edward Dean Sur. .. S.D. 1,440 ft.

SHELBY COUNTY

Benedum & Trees Oil Co.'s No. 1 Pickering Lbr. Co., 300 ft. S, 300 ft. W, NE cor. Lot 20, D. T. F. Yordt Sur. ..... Began drlg. Sept. 10.

Chapperall Oil Co.'s No. 2 Holt, Matthew Moore Sur. .... S.D. for orders 3,094 ft.

Gulf Ref. Co.'s No. 1 Carraway, J. H. Patterson Sur. .... Drlg. hard blue shale and streaks of lime 6,511 ft.

MISSISSIPPI

ALCORN COUNTY

Alcorn Pet. Co.'s No. 1 Matthews, SE cor., Sec. 14-2s-7e .. Drlg. 2,380 ft.

CHICKASAW COUNTY

Hightower & Golson's No. 1 Flemming, NE cor., Sec. 20-13-3 ..... Quicksand 1,240 ft.

HINDS COUNTY

Harry Gerson's No. 1 Edward House, Blk. 16, West Jackson Subd. City of Jackson, in Twp. 5n, Range 1e .... Rig up.

Oscar Brown's No. 1 Riverside (formerly Hennessee et als'), SE cor. SE SW, Sec. 23-16-5 ..... Set 12½-in. 30 ft; S.D. 1,050 ft.

Mrs. Reeder et als' No. 1 State, SE cor. NW NW, Sec. 25-6-1e ..... S.D. 2,895 ft.

South. Christian Institute's No. 1 fee, SE SW, Sec. 29-6-4. Drlg. 400 ft.

HUMPHREYS COUNTY

E. C. Steele et als' No. 1 C. B. Box, SE cor. SE NE, Sec. 25-14-4w ..... Set 12½-in. 60 ft; S.D.

LAUDERDALE COUNTY

Lauderdale O. & G. Co.'s No. 1 Lackey, 990 ft. S and E, NW cor. NE, Sec. 2-7-16 ..... Cored sand, shale and gumbo 2,494-2,500 ft.

Meridian O. & G. Co.'s No. 1 Hauser, Sec. 33-8-18 ..... Drlg. tough gumbo 2,166 ft.

J. R. Smith Oil Co.'s No. 1 C. F. Craig, Sec. 2-6-14 ..... Derrick.

LAFAYETTE COUNTY

Binks-Goode et als' No. 1 May, 113½ rods S, 26 rods E, NW cor. SW, Sec. 22-10-1w ..... Derrick.

LINCOLN COUNTY

La.-Miss. Oil Co.'s No. 1 Pat Case, NE NE, Sec. 21-8-6 .. Spudded Feb. 17, 1929; S.D. 80 ft; resumed drlg. Aug. 12; cmtd. 12½-in. 368 ft.

MONROE COUNTY

Amory Dev. Co.'s No. 1 Bouriand, Sec. 2-12-19 ..... S.D; waiting for 5 3/16-in. csg. 2,580 ft.

Amory Pet. Co.'s No. 1 Hall, Sec. 8-13-19 ..... Fish. for liner and tools 3,045 ft.

Park Bowser et als' No. 1 Cowart, second hole, Sec. 2-12-19 ..... S.D. 30 ft.

RANKIN COUNTY

Home Oil Prod. Co.'s No. 1 E. P. Rainey, NW NW, Sec. 13-5-1e ..... Derrick.

WARREN COUNTY

El Dorado Oil Co.'s No. 1 Dornbush, Sec. 8-18-5 ..... Drlg. 2,400 ft.

YALOBUSHA COUNTY

Philp Bros.' No. 1 James, Sec. 20-11-5 ..... Drlg. black shale 3,030 ft.

Carter Oil Co. and J. D. Collett's No. 1 Blackmur, 330 ft. S, 990 ft. W, C, Sec. 14-11-4 ..... Location.

TENNESSEE

DECATUR COUNTY

Standard Oil Co. of La.'s No. 1 Wyatt ..... Filled up 600 ft. wtr. in 8 hrs; T.D. 1,254 ft.

Chester County Oil Co.'s No. 1 Montgomery ..... Cmtd. 6-in. 1,040 ft; drlg. hard gray lime 1,165 ft.

ALABAMA

CHOCTAW COUNTY

Robinson & Greer's No. 1 Douglas Oil Co., 320 ft. N, C, Sec. 15-19-2 ..... Cmtd. 8-in. 2,040 ft; drlg. Selma chalk 2,400 ft.

LAMAR COUNTY

Briggs & Knapp's No. 1 Wefel, Sec. 25-12-14 ..... Reaming to bottom; T.D. 1,180 ft.

SUMTER COUNTY

B. W. Bates' No. 1 fee, Sec. 3-18-1 ..... U.R. surface csg. at 300 ft; to set 6-in.

WASHINGTON COUNTY

S. A. Hobson's No. 1 Hobson Bros., Sec. 9-8-2 ..... S.D.; S.W. flow at 1,450 ft; T.D.

S. A. Hobson's No. 1 Wilson, Sec. 27-7-1 ..... S.D. 700 ft.

LOUISIANA-ARKANSAS PROVEN AREAS

(Continued from Page 62)

Ray-Dawes Drlg. Co.'s No. 2 Hunter, 990 ft. E, 330 ft. N, SW cor., Sec. 9-19-14 ..... Rigging up.

Standard Oil Co.'s No. 3 Henderson, 220 ft. N, 330 ft. W, SE cor. SW SE, Sec. 7-19-14 ..... Derrick.

The Texas Co.'s No. 1 Hunter, SE cor., Sec. 8-19-14 ..... Began drlg. Sept. 4; cmtd. 10-in. 100 ft; coring 2,404 ft.

CADDO PARISH—OIL CITY

W. D. Chew's No. 5 fee, Sec. 33-21-16 ..... Tested S.W. show of oil; W.O. 3,306 ft.

Gulf Ref. Co.'s No. 19-A Levee Board, 700 ft. E, 220 ft. S, NW cor. NE, Sec. 34-21-16 ..... Rigging up.

Magnolia Pet Co.'s No. 4 Levee Board, 330 ft. S, 330 ft. E, NW cor. NE NE, Sec. 7-20-15 ..... Drlg. gummy chalk 1,710 ft.

Oil City Oil Co.'s No. 6 Curtis, 985 ft. W, 2,508 ft. S, NE cor. NW, Sec. 10-20-16 ..... W.O.S.R.; 2,293 ft.

Shreveport Oil Corp.'s No. 1 Guy, NW NE, Sec. 32-21-15. Tested S.W. with show of oil; S.D. for orders; T.D. 2,300 ft.

Simplex Oil Co.'s No. 7 Youree-Randolph, 660 ft. N, 660 ft. W, C, Sec. 13-20-15 ..... Tested 50,000 ft. gas 2,300 ft; S.D for orders; T.D. 2,326 ft.

The Texas Co.'s No. 71 Levee Board, 1,150 ft. E, 700 ft. N, SE cor. SE, Sec. 27-21-16 ..... W.O.S.R.; 1,825 ft.

The Texas Co.'s No. 72 Levee Board, 725 ft. N, 210 ft. E, SW cor. SE, Sec. 27-21-16 ..... Derrick.

CADDO PARISH—HOSSTON

Standish O. & R. Co.'s No. 12 Allen, 1,120 ft. W, 330 ft. S, C, Sec. 23-22-15 ..... S.D.; W.O. 1,066 ft.

L. A. Warren's No. 2 Ivins, 120 ft. S, 200 ft. W, C, Sec. 33-22-15 ..... Began drlg. Aug. 28; cmtd. 10-in. 40 ft; 6-in. 1,053 ft; tested small show oil and W.O. 1,079 ft.

CADDO PARISH—LEWIS

Snake Creek Oil Co.'s No. 1 Levee Board, SW NW, sec. 9-21-16 ..... Tested dry with show of oil and S.W; S.D; T.D. 2,328 ft.

CADDO PARISH—PINE ISLAND

C. H. French's No. 6 Muslow, 1,150 ft. N, 600 ft. W, SE cor., Sec. 31-21-15 ..... Cmtd. 6-in. 1,272 ft; W.O.S.R.; 1,690 ft.

Double I I Oil Co.'s No. 11 Spell, Sec. 15-21-15 ..... W.O.S.R.; 1,690 ft.

CLAIBORNE PARISH—HOMER

Oakes et als' No. 1 Richardson, NE SE, Sec. 19-21-7 .... S.D. 1,112 ft; in litigation.

CLAIBORNE PARISH—HAYNESVILLE
LASALLE PARISH—URANIA

Air Lift Oil Co.'s No. 3 Mo.-Pac. R. R., Sec. 26-10-1e .... W.O.S.R; 13 ft. broken sand; T.D. 1,525 ft.

Air Lift Oil Co.'s No. 1 fee, Sec. 26-10-1e ..... Drlg. 600 ft.

Kinney, Hardtner & Randall's No. 1 Kinney, SW SW, Sec. 7-10-2e ..... S.D. 1,320 ft.

Philp et als' No. 1 Urania, SE cor. NE NE, Sec. 1-10-1e. Tested 500,000 ft. gas and sanded up; C.O; setting liner to test. T.D. 730 ft.

Randall et als' No. 3 Urania, Sec. 1-10-1e ..... S.D. 675 ft.

Trio Oil Co.'s No. 2 Urania, NE cor. SW SW NW, Sec. 19-10-1e ..... Derrick.

MOREHOUSE PARISH

J. S. Herkness' No. 9 Bowles, 506 ft. S, 1,989 ft. E, NW cor. Sec. 17-20-3 ..... Began drlg. Sept. 6; cmtd. 10-in. 179 ft; drlg. 1,650 ft.

S. D. Hunter's No. 10 Allison, 1,962 ft. E, 660 ft. S, NW cor., Sec. 18-20-5 ..... Cmtd. 6-in. 2,165 ft.

Magnolia Pet. Co.'s No. 5 U. S., 620 ft. N, 330 ft. W, SE cor. NE SW, Sec. 29-21-5 ..... Estimated 5,000,000 ft. gas; drill stem stuck; T.D. 2,363 ft.

Southern Carbon Co.'s No. 12 Tensas. 660 ft. S, 660 ft. E, NW cor., Sec. 2-20-4 ..... Rigging up.

United Carbon Co.'s No. 2 Patton, 660 ft. N, 660 ft. E, SW cor. SE, Sec. 2-20-4 ..... Location.

United Carbon Co.'s No. 3 Patton. 660 ft. W, 660 ft. S, NE cor. SE, Sec. 2-20-4 ..... Location.

OUACHITA PARISH

Amalgamated Carbon Co.'s No. 3 Cole, 1,616 ft. E, 721 ft. S, NW cor., Sec. 42-19-4 ..... Location.

Austin & Jordan's No. 1 Chauvin, 110 ft. E, 329 ft. S, most northerly cor., Sec. 62-18-3 ..... Location.

Ark.-La. P. L. Co.'s No. 3 McEnery, 1,980 ft. N, 900 ft. E, SW cor., Sec. 28-19-4 ..... Cmtd. 8-in. 802 ft; drlg. 1,630 ft.

Austin & Jordan's No. 2 Wall, Sec. 11-18-3 ..... Rigging up.

J. S. Herkness' No. 7 Bowles, 1,806 ft. E, 3,165 ft. S, NW cor. NE, Sec. 20-20-5 ..... T.A. 2,311 ft.

Imperial O. & G. Co.'s No. 9 Stubbs, 150 ft. S, 150 ft. E, NW cor., Sec. 18-19-4 ..... Cmtd. 6-in. 2,094 ft.

G. E. Jordan's No. 1 Anding, NW NE, Sec. 18-18-5 ..... Plugged back to 2,234 ft; T.D. 2,486 ft.

Jordan Drlg. Co.'s No. 4 J. Cole, 2,337 ft. N, 3,301 ft. W, SE cor., Sec. 1-18-3 ..... Drlg. 6-in. plug 2,122 ft.

Mack & Pipes' No. 3 Schultz, 2,777 ft. N, 300 ft. W, SE cor. SW, Sec. 13-18-4 ..... Began drlg. Sept. 6; cm.d. 12-in. 190 ft; 8-in. 870 ft.

Magnolia Pet. Co.'s No. 2 fee 401, 660 ft. S, 660 ft. E, NW cor., Sec. 2-18-3 ..... Derrick.

Magnolia Pet. Co.'s No. 3 fee 404, 660 ft. N, 660 ft. E, SW cor., Sec. 11-19-5 ..... Rigging up.

Magnolia Pet. Co.'s No. 4 U. S., Sec. 20-19-5; reported completed July 31, in error ..... Tested 1,000,000 ft. gas at 515 lbs. rock pres.; setting liner 2,528 ft.

Southern Carbon Co.'s No. 13 Fairbanks, 2,502 ft. N, 1,500 ft. W, SE cor., Sec. 4-19-11 ..... Cmtd. 6-in. 2,106 ft.

Southern Carbon Co.'s No. 54 fee, 660 ft. N, 674 ft. W, SE cor. NE, Sec. 13-19-4 ..... Tested 500,000 ft. gas; drlg. 2,311 ft.

Southern Carbon Co.'s No. 4 Phillips, 660 ft. S, 660 ft. E, NW cor., Sec. 8-19-4 ..... Location.

Stubbs, trustee's No. 1 Linton Stubbs, 203 ft. E, 121 ft. S, Sec. 19-19-4 ..... Location.

United Oil & Nat. Gas Products Co. of La.'s No. 2 Cole, 660 ft. S, 594 ft. E, C, Sec. 26-20-4 ..... Derrick.

United Oil & Nat. Gas Products Co. of La.'s No. 5 Guthrie, 6,896 ft. N, 6,022 ft. W. cor. Secs. 49, 26, and 25, Sec. 49-20-5 ..... Derrick.

RED RIVER PARISH

J. H. Askew's No. 1 Lockett, NW SW, Sec. 32-13-10 .... Standing 80 ft. in oil; W.O.S.R.; 2,820 ft.

Joe Danciger et als' No. 1 Pickett, 6,621 ft. S, 2,623 ft. W, NE cor., Sec. 15-13-11, in Sec. 22-13-11 ..... C.O. 2,400 ft; T.D. 2,555 ft.

Root Refineries, Inc.'s No. 1 Home State & Savings Bank, 330 ft. N, 330 ft. W. C, Sec. 8-13-10 ..... Oil show 2,570 ft; drill stem test; S.W; cored sand showing gas 2,598 ft; S.D. 2,667 ft.

RICHLAND PARISH

W. C. Feazel's No. 1 Haynes & Vincent, 275 ft. S, 1,439 ft. E, NW cor. NE, Sec. 17-16-6 ..... Cmtd. 6-in. 2,278 ft.

W. C. Feazel's No. 1 Brown, 2,800 ft. W, 1,760 ft. S, NE cor., Sec. 27-16-6 ..... Began drlg. Sept. 9; drlg. 100 ft.

Feazel, Bendel & Brown's No. 1 J. H. Hunter, 660 ft. S, 660 ft. W, NE cor. NW, Sec. 23-16-6 ..... Rigging up.

Hope Prod. Co.'s No. 1 Boykin, 660 ft. N, 660 ft. E, SW cor. NW, Sec. 21-17-6 ..... Derrick.

Hope Prod. Co.'s No. 1 J. H. Hemler, 660 ft. S, 660 ft. W, NE cor., Sec. 11-16-6 ..... Began drlg. Sept. 7; cmtd. 12½-in. 179 ft.

International Gas Prod. Co.'s No. 1-A Beck, 650 ft. S, 660 ft. E, NW cor., Sec. 23-16-6 ..... Estimated 15,000,000 ft. gas; trying to kill to deepen; T.D. 2,468 ft.

Magnolia Pet. Co.'s No. 3 Hatch, 180 ft. N, 660 ft. W, SE cor. NE SE, Sec. 2-15-5 ..... Cmtd. 15½-in. 203 ft.

Magnolia Pet. Co.'s No. 4 C. M. Noble, 400 ft. S, 660 ft. W, NE cor. SE NE, Sec. 35-16-5 ..... Location.

Magnolia Pet. Co.'s No. 1 B. F. Sartor, 1,687 ft. W, 787 ft. N, C, Sec. 17-16-6 ..... Cmtd. 10¾-in. 310 ft.

M. L. Meredith's No. 1 Holdness, 1,980 ft. S, 990 ft. W, NE cor., Sec. 15-16-6 ..... Rigging up.

Northern La. Nat. Gas Co.'s No. 4 Boykin, Sec. 20-17-14. Cmtd. 9-in. 927 ft.

Palmer Corp.'s No. 1 Boykin, 660 ft. S, 660 ft. E, NW cor. SW, Sec. 21-17-6 ..... Cmtd. 6-in. 2,315 ft.

Palmer Corp.'s No. 1 Eubanks, 1,100 ft. N, 350 ft. E, SW cor. SE NW, Sec. 26-17-6 ..... Derrick.

Palmer Corp.'s No. 1 La. Pet. Co., Sec. 22-17-6 ..... Tes.ed estimated 2,000,000 ft gas; W.O. 2,478 ft; C.O.

Palmer Corp.'s No. 4 Marshfield, 1,980 ft. E, 1,320 ft. N, SW cor. SW, Sec. 20-17-6 ..... Drlg. shale 1,734 ft.

Palmer Corp.'s No. 1 Mulhern, 660 ft. S, 1,320 ft. W, NE cor. NE, Sec. 29-17-6 ..... Cmtd. 10-in. 935 ft.

Palmer Corp.'s No. 4 Rhymes, 660 ft. S, 1,320 ft. W. NE cor. NW, Sec. 28-17-6 ..... Drlg. rock 2,264 ft.

Southern Carbon Co.'s No. 1 Binion & Sartor, 660 ft. N, 1,320 ft. E, SW cor. SE, Sec. 21-17-6 ..... Fish. for drill stem; T.D. 2,252 ft.

United Carbon Co.'s No. 1 Thornby, 660 ft. W, 660 ft. N, SE cor. NW NE, Sec. 12-16-6 ..... Cmtd. 8-in. 794 ft.

SABINE PARISH—PLEASANT HILL

Ark. Fuel Oil Co.'s No. 2 Horne, 660 ft. N, 300 ft. E, SW cor. SE SW, Sec. 33-10-12 ..... Drlg. 2,238 ft.

Bridges-Clark Oil Co.'s No. 2 Williams, 2,150 ft. W, 2,000 ft. S, NE cor., Sec. 33-10-12 ..... Derrick.

Magnolia Pet. Co.'s No. 3 E. E. Hall, 460 ft. N, 200 ft. W, SE cor., Sec. 33-10-12 ..... Drlg. chalk 2,060 ft.

UNION PARISH

Bahan & Bahan's No. 2 Peake, 1,425 ft. S, 100 ft. W, NE cor., Sec. 17-20-4 ..... Cmtd. 6-in. 2,084 ft.

Bahan & Bahan's No. 2 School, 1,130 ft. N, 330 ft. W, SE cor., Sec. 10-20-3 ..... Estimated 4,000,000 ft. gas; trying to kill to deepen; T.D. 2,121 ft.

Bahan & Bahan's No. 1 Bess, 47 ft. S, 64 ft. W, NE cor. NW, Sec. 11-20-3 ..... Location.

Industrial Gas Co.'s No. 1 Jenny, 2,629 ft. N, 657 ft. E, SW cor., Sec. 6-20-4 ..... Location.

WEBSTER PARISH—COTTON VALLEY

La. Oil Ref. Corp.'s No. 9 Gray, 1,980 ft. S, 660 ft. W, NE cor. NW, Sec. 29-21-10 ..... Cmtd. 9⅝-in. 3,500 ft.

Magnolia Pet. Co.'s No. 1 McCook & Hibbler, C SW SW, Sec. 22-21-10 ..... Cored hard sand showing oil 6,804-13 ft; csg. collapsed; waiting swedging tool to run sand tester; T.D. 6,816 ft.

Palmer Corp.'s No. 1 Sally Coyle, 660 ft. S, 660 ft. W, NE cor. NE SW, Sec. 28-21-10 ..... Drlg. 3,019 ft.

Standard Oil Co.'s No. 3-D Bodcaw, 660 ft. N, 660 ft. E, SW cor. SE NE, Sec. 28-21-10 ..... Began drlg. Sept. 8; cmtd. 12½-in. 495 ft.

WEBSTER PARISH—SAREPTA AND SHONGALOO

Pat Hundson's No. 1 L. S. Gardner, 150 ft. E, 200 ft. S, NW cor. SW NE, Sec. 1-22-11 ..... Rigging up.

Pat Hudson's No. 1 Slack, SE NE, Sec. 1-22-9 ..... Standing 1,200 ft. in oil; W.O.S.R.; T.D. 2,745 ft.

F. E. Estes' No. 2 Pardee, 1,270 ft. W, 50 ft. S, NE cor. NW, Sec. 3-22-11 ..... Rigging up.

W. M. Kemp et als' No. 1 R. D. Campbell, 250 ft. S, 250 ft. W, NE cor. NW NE, Sec. 11-22-10 ..... Milling out liner 2,653 ft.

Magnolia Pet. Co.'s No. 1 N. T. Knight, 330 ft. S, 330 ft. E. NW cor. SE SE, Sec. 33-23-9 ..... Drlg. gummy shale 2,647 ft.

Woodmansee et als' No. 1 Boyd, 200 ft. S, 200 ft. E, NW cor. SE SW, Sec. 3-22-11 ..... Derrick.

WINN PARISH—URANIA

Gardner, Hunter & Brown's No. 15 Harper, 550 ft. N, 50 ft. E, SW cor. NW NE, Sec. 26-10-1e ..... W.O.S.R.; 4-ft. sand 1,498 ft.

Gardner, Hunter & Brown's No. 16 Harper, 330 ft. N, 400 ft. E, SW cor. NW NE, Sec. 26-10-1e ..... Rigging up.

ARKANSAS
NEVADA COUNTY

C. F. Steele's No. 1 E. W. Groves, Sec. 21-14-20 ..... S.D. for wtr; T.D. 2,821 ft.

MOUNT HOLLY

Houston Oil Co.'s (was McDonald Bros.') No. 2-A Wilson, 330 ft. S, 330 ft. E, NW cor. NE SW, Sec. 25-15-18 ..... W.O.S.R; 2,100 ft oil; 11 ft. sand; T.D. 2,766 ft.

Houston Oil Co.'s (was McDonald Bros.') No. 1-B Wilson, 150 ft. N, 150 ft. E, SW cor. SW NW, Sec. 25-15-18 ..... Rigging up.

E. M. Jones' No. 1-A Wilson, 150 ft. S, 150 ft. W, NE cor., Sec. 26-15-18 ..... Drlg. 3,000 ft.

E. M. Jones' No. 1-C Allen, 200 ft. N, 200 ft. E, SW cor., Sec. 25-15-18 ..... Location.

OUACHITA COUNTY—SMACKOVER

D. F. Foster's No. 1 Murphy, SW cor. NE SW, Sec. 35-15-16 ..... Rig up.

L. H. Hamilton's No. 1 Arnold & Doyle, SE SE, Sec. 23-15-16 ..... Standing 400 ft. in fluid; 38 ft. broken sand; T.D. 2,010 ft.

Magna Prod. Co.'s No. 7-B Linahan, NW cor. SE NW, Sec. 36-15-16 ..... Rig up.

Magna Prod Co.'s No. 11-B Linahan, 25 ft. NE of No. 10-B, in SW cor. SE NW, Sec. 36-15-16 ..... W.O.S.R; 300 ft. fluid; T.D. 2,004 ft.

Phillips Pet. Co.'s No. 2 Clayton, 250 ft. N, 250 ft. E, SW cor. NW NE, Sec. 34-15-15 ..... Rigging up.

Phillips Pet Co.'s No. 4 Scott, 250 f., S, 350 ft. W, NE cor. SW NE, Sec. 34-15-15 ..... Derrick.

J. D. Reynolds' No. 1 fee, SE cor. SE SW, Sec. 27-15-15. Coring 2,004 ft.

Simms Oil Co.'s No. 3 E. Johnson, 265 ft. E, 300 ft. S, NW cor. NE SE, Sec. 34-15-15 ..... Location.

Skelly Oil Co.'s No. 3 Woods, 200 ft. S, 200 ft. E, NW cor. SE NE, Sec. 34-15-15 ..... Began drlg. Sept. 6; cmtd. 10-in. 68 ft; 6⅝-in. 2,020 ft; T.D. 2,030 ft.

Standard Oil Co.'s No. 12 Arnold, 200 ft. S, 200 ft. W, NE cor., Sec. 26-15-16 ..... Began drlg. Aug. 28; cmtd. 10-in. 102 ft; drlg sand rock 1,015 ft.

Standard Oil Co.'s No. 13 Arnold, 200 ft. S, 200 ft. E, NW cor. NE NE, Sec. 26-15-16 ..... Location.

Standard Oil Co.'s No. 8 Powell, 200 ft. S, 200 ft. W, NE cor. SE NW, Sec. 34-15-15 ..... Location.

UNION COUNTY—CHAMPAGNOLLE

Gann et als' No. 1 Doss, Sec. 10-17-15 ..... Tested S.W. 2,900 ft; W.O.; T.D. 3,240 ft.

Gann et als' No. 1 Schmidt, NW NW, Sec. 15-17-14 ..... Derrick.

Magnolia Pet. Co.'s No. 1 Schmidt, 300 ft. N, 300 ft. W, SE cor. NW SW, Sec. 5-17-14 ..... Rigging up.

Joe Morris No. 2 Goodwin, 150 ft. E, 250 ft. N, SW cor., Sec. 3-16-16 ..... Began drlg. Sept. 5; cmtd. 10-in. 120 ft.

Oilwell Corp.'s No. 2-E Perdue, NW NW, Sec. 9-17-15 .. S.D. 3,265 ft.

Rovenger Oil Corp.'s No. 3-B Perdue, 330 ft. S, 330 ft. W, NE cor. SE NE, Sec. 9-17-15 ..... Arranging swab 3,235 ft; T.D. 3,280 ft.

UNION COUNTY—EL DORADO

J. P. Hawkins' No. 1 Goodwin, Sec. 8-17-15 ..... Tested S.W. 2,220 ft; W.O.; T.D. 2,232 ft.

Rice et als' No. 1 W. Raltey, 150 ft. S, 150 ft. E, NW cor. SW, Sec. 7-17-15 ..... Spudded July 18; cmtd. 10-in. at 92 ft.

UNION COUNTY—SMACKOVER

E. L. Chapman's No. 2 Bradley, 200 ft. N, 320 ft. E, SW cor. SW NW, Sec. 2-16-16 ..... Derrick.

E. L. Chapman's No. 2 Purifoy, Sec. 2-16-16 ..... Plug back to 2,316 ft; T.D. 2,385 ft.

E. M. Jones' No. 1 H. Murphy, 211 ft. S, 211 ft. E, NW cor. Lot 3, NW, Sec. 2-16-15 ..... Cmtd. 6⅝-in. 1,933 f.; reported S. D. 2,311 ft. to drill wtr, well in error.

A. H. Ramage's No. 1-A James, Sec. 6-16-15 ..... Ins.alling vacuum system; T.D. 1,984 ft.

J. D. Reynolds' No. 1 fee, SE cor. SE SW, Sec. 27-15-15. Rigging up.

EAST TEXAS
HARRISON COUNTY

Nick Barbare's No. 1 Abney, NE cor. J. J. Blair Sur. ... Drlg. 1,550 ft.

C. H. Lyons' No. 2-A Furrh, J. Lipscomb Sur. ..... Rigging up.

Mason et als' No. 1 Dean, J. W. Crofts Sur. ..... Drill stem test 2,765 ft. dry; arranging to deepen.

PANOLA COUNTY

Eureka Nat. Gas Co.'s No. 1 Jeter, 300 ft. S, 300 ft. W, NE cor. John Womack Sur. ..... Drlg. 1,800 ft.

S. H. Gardner's No. 4 Roquemore, 5,176 ft. E, 4,432 ft. S, NW cor. B. C. Jordan Sur. ..... Rigging up.

Magnolia Pet. Co.'s No. 4 T. C. Adams, E. Jones Sur. ... Blowing heads; T.D. 2,751 ft.

Magnolia Pet. Co.'s No. 1 Davenport, 660 ft. N, 660 ft. W, SE cor. Jessie Dunlop Sur. ..... O.W.D.D; drlg. 2,253 ft.

Magnolia Pet. Co.'s No. 18 Carrie G. Steele, B. C. Jordan Sur.	Drlg. sandy shale 2,736 ft.
Magnolia Pet. Co.'s No. 1 Leigh-Trosper, B. Stephenson Sur.	Fishing 3-in. drill stem; T.D. 2,620 ft.
Natural Gas Prod. Co.'s No. 1 Mays, 1,550 ft. W, 500 ft. N, SE cor. Jane Thorpe Sur.	Cmtd. 6-in. 2,329 ft; arranging to test; T.D. 2,359 ft.
D. Thomason's No. 1 Tillery, 350 ft. N. 302 ft. W, SE cor. Jane Thorpe Sur.	Rigging up.
D. Thomason's No. 2 Tillery, 393 ft. N. 332 ft. E, SW cor. Jane Thorpe Sur.	Location.

GULF COAST FIELDS AND WILDCATS

(Continued from Page 61)

Humble Oil & Refg. Co.'s No. 8 Brazos	Rig.
Humble Oil & Refg. Co.'s No. 9 Brazos	Waiting cement to set 3,300 ft.
Humble Oil & Refg. Co.'s No. 3 Hamner fee	Location.
Humble Oil & Refg. Co.'s No. 6 Hamner fee	Drlg. shale and lime 2,918 ft.
Humble Oil & Refg. Co.'s No. 2-A Bankers Mortgage	Drlg. sticky shale 3,645 ft.
Humble Oil & Refg. Co.'s No. 8 Camp	Drlg. shale 1,110 ft.
Humble Oil & Refg. Co.'s No. 1 Hagenson	Drlg. sandy shale 2,404 ft.
Humble Oil & Refg. Co.'s No. 3 Deatherage	Drlg. 1,246 ft.
Humble Oil & Refg. Co.'s No. 12 Sugarland	Rig.
Humble Oil & Refg. Co.'s No. 13 Sugarland	Derrick.
Humble Oil & Refg. Co.'s No. 6 Nelson	Rig.
HUMBLE—HARRIS COUNTY	
Continental Oil Co.'s No. 1 Wagner	Sidetracking 3,660 ft.
Continental Oil Co.'s No. 1 Cezeaux, south side	To pump 4,520 ft.
Humble Oil & Refg. Co.'s No. 4 Williams	Drlg. shale 3,870 ft.
Humble Oil & Refg. Co.'s No. 5 Williams	Set casing 1,850 ft.
Humble Oil & Refg. Co.'s No. 1 Glass, south	Bailed salt water 5,025 ft.
Navarro Oil Co.'s No. 1 La. Oil Refg. Corp.	Drlg. gumbo and lime 3,045 ft.
Harvey Smith et al's No. 1 Rosenthall, north side	Rigging up to pump 4,205 ft.
South Texas Petroleum Co.'s No. 10 Morris, south side	Drlg. hard shale 4,333 ft.
South Texas Petroleum Co.'s No. 11 Morris, south side	Drlg. shale and lime 2,922 ft.
South Texas Petroleum Co.'s No. 1 Lee, south flank	Drlg. shale and lime 2,968 ft.
Sun Oil Co.'s No. 47 River, north side	No report.
The Texas Company's No. 265 Landslide, south	Bailing showing oil and gas sand 5,443 ft.
The Texas Company's No. 266 Landslide	Reaming; bottom in sticky shale 4,960 ft.
The Texas Company's No. 267 Landslide, south	Drlg. shale and lime 4,500 ft.
The Texas Company's No. 268 Landslide, south	Drlg. shale and lime 3,817 ft.
The Texas Company's No. 269 Landslide, south	Drlg. gumbo, lime and boulders 2,473 ft.
The Texas Company's No. 23 House	Drlg. shale and boulders 3,530 ft.
West Production Co.'s No. 1 Foster	Drlg. shale and lime 4,100 ft.
BLUE RIDGE—FORT BEND COUNTY	
Cunningham Production Co.'s No. 2 Blakely (workover)	Drlg. sand 2,665 ft.
Gulf Production Co.'s No. 17 Luscher	Spudded.
Sinclair Oil & Gas Co.'s No. 3 Davison (workover)	Total depth 4,627 ft.; to pump sand 4,400 ft.
South Texas Petroleum Co.'s No. 1 Lee (workover)	Rigged up to pump 4,188 ft.
PIERCE JUNCTION—HARRIS COUNTY	
Abercrombie & Harrison's No. 1 Ritter	Tested salt water 4,428 ft.; to deepen.
Anderson & Plummer's No. 3 Whitehead (workover)	Preparing to deepen.
Anderson & Plummer's No. 5 Whitehead, old well	Comp. flowing 50 bbls. fluid, 5 per cent water 3,461 ft.
Gulf Production Co.'s No. 23 Taylor (workover)	Comp. flowing 120 bbls. oil 5,228 ft.
Gulf Production Co.'s No. 30 Taylor, east	Abandoned in sand and lime 4,155 ft.
Navarro Oil Co.'s No. 2-A Cain (workover)	Rigging up to deepen.
Navarro Oil Co.'s No. 4-B Cain	Coring sand 5,587 ft.
Rio Bravo Oil Co.'s No. 11 B. Settegast	Drlg. hard sandy lime 3,600 ft.
Rio Bravo Oil Co.'s No. 7-A Settegast (workover)	Drlg. gumbo and shale 3,467 ft.
Rio Bravo Oil Co.'s No. 14-A Settegast, west	Fishing stuck drill stem 5,067 ft.
Saxet Gas Co.'s No. 2 Herman estate, southwest	Sidetracking 3,935 ft.
Saxet Gas Co.'s No. 4 Herman (southwest)	Oil sand 3,930-79 ft.; cem. 6⅝-in. casing 3,720 ft.
Saxet Gas Co.'s No. 5 Herman (southwest)	Derrick.
Superior Oil Corp.'s No. 5-B Settegast (workover)	Milling 4,351 ft.
J. F. Barron's No. 3 Fitzsimmons	Derrick.
Shaw & Texas Exploration Co.'s No. 2-F Fitzsimmons	Derrick.
T. G. Shaw's No. 1 Dooley	Drlg.
Superior Oil Corp.'s No. 5-B Settegast (workover)	To deepen.
LIBERTY—LIBERTY COUNTY	
Empire Gas & Fuel Co.'s No. 4 Groggan	Drlg. sand and shale 3,422 ft.
Empire Gas & Fuel Co.'s No. 5 Groggan	Drlg. sand showing oil 3,482 ft.
Empire Gas & Fuel Co.'s No. 6 Groggan	Rig.
Sun Oil Co.'s No. 48 Mitchell	Sand and shale showing oil 3,510 ft.
Sun Oil Co.'s No. 49 Mitchell	Drlg. gumbo and lime 2,967 ft.
HULL—LIBERTY COUNTY	
Empire Gas & Fuel Co.'s No. 27 Barngrover, old well	To test sand and shale showing gas 3,572 ft.
Gulf Production Co.'s No. 45 Phoenix (workover)	Preparing to deepen.
Gulf Production Co.'s No. 52 Phoenix, workover	Drlg. gumbo and lime 3,588 ft.
Houston Production Co.'s No. 13 Barngrover	Drlg. gumbo 3,269 ft.
Humble Oil & Refg. Co.'s No. 11 Hooks-Spell	Set screen 3,796 ft.; to test sand and shale.
Republic Production Co.'s No. 35 Dolbear (workover)	Drlg. shale 4,218 ft.
Republic Production Co.'s No. 99 Dolbear (workover)	Tested salt water 3,543 ft.; sidetracking.
Republic Production Co.'s No. 109 Dolbear (workover)	Tested salt water 2,416 ft.
Republic Production Co.'s No. 128 Dolbear (workover)	Temporarily abandoned 2,225 ft.
The Texas Company's No. 8 Hannah-Vacuum	Location.
BIG CREEK—FORT BEND COUNTY	
Benedum & Trees' No. 1 Moore	Spudded.
Gulf Production Co.'s No. 35 Davis, workover	To deepen.
Gulf Production Co.'s No. 55 Davis	Comp. flowing 3,500 bbls.; 2 joints screen set 4,097 ft.
Gulf Production Co.'s No. 56 Davis	Rig.
The Texas Company's No. 3 Wheat (old well)	Rig up to work over.
NASH—BRAZORIA COUNTY	
Rycade Oil Corp.'s No. 26 Wisdom	Drlg. hard lime 4,873 ft.
BATSON—HARDIN COUNTY	
The Beaux No. 1 King	Drlg. 1,206 ft.
Paraffine Oil Co.'s No. 46 Paraffine	Standing 1,243 ft.
SOUR LAKE—HARDIN COUNTY	
Austin et al's No. 1 Watson	Rig.
Lake View Oil Co.'s No. 62 Hardin	Comp. pumping 13 bbls. 1,961 ft.
United Oil & Fuel Co.'s No. 1 Brown	Drlg. 1,657 ft.
ORANGE—ORANGE COUNTY	
Gulf Production Co.'s No. 1 Morse-Granger et al (workover)	Tested salt water; aband. 4,650 ft.
Orange Petroleum Co.'s No. 8 Winfree (old well)	Comp. pumping 70 bbls. oil 3,543 ft.
Rex Petroleum Co.'s No. 6 Carbello, old well	Tested salt water 3,159 ft.; abandoned.
Sinclair Oil & Gas Co.'s No. 5 Gailliere (workover)	Pulling liner to deepen 3,502 ft.
GOOSE CREEK—HARRIS COUNTY	
Cedar Bayou Oil Co.'s No. 11 Busch	To sidetrack 1,748 ft.
Russell Ferrell's No. 4 Gillette (workover)	Rigging.
Gulf Production Co.'s No. 25 Ashbel Smith (workover)	Abandoned 3,668 ft.
Humble Oil & Refg. Co.'s No. 75 Simms-Smith	Drlg. sand and shale 5,680 ft.
C. T. Rucker's No. 1 Jones	Drlg. 1,753 ft.
Lake Shore Oil Co.'s No. 4 Duke	Fishing 3,046 ft.
Lee & Scott's No. 3 Scott	Comp. pumping 125 bbls. 2,609 ft.
Jim McMurry's No. 3 Grace Addey (old well)	Drlg. 2,667 ft.
Lube Well Oil Co.'s No. 1 Dannenbaum, old well	Tested salt water 1,607 ft.; shut down.
Newton & Lillie's No. 3 Schilling, old well	Comp. flowing 10 bbls. oil; sand 1,686 ft.
SPINDLETOP—JEFFERSON COUNTY	
Yount Lee Oil Co.'s No. 61 McFaddin (workover)	Drlg. sand 3,146 ft.
Yount Lee Oil Co.'s No. 70 McFaddin (workover)	Drlg. 3,806 ft.
Yount Lee Oil Co.'s No. 72 McFaddin (workover)	Testing sand and shale 4,829 ft.
Yount Lee Oil Co.'s No. 113 McFaddin	Preparing to pump 4,637 ft.
Yount Lee Oil Co.'s No. 114 McFaddin	Drlg. shale 3,836 ft.
Yount Lee Oil Co.'s No. 115 McFaddin	Abandoned 3,700 ft.
Yount Lee Oil Co.'s No. 116 McFaddin	Spudded.
Yount Lee Oil Co.'s No. 44 Gladys City (workover)	Drlg. shale and lime 5,100 ft.
Yount Lee Oil Co.'s No. 58 Gladys City (workover)	Drlg. sand and lime 3,904 ft.
Yount Lee Oil Co.'s No. 84 Gladys City, workover	Heaving shale 5,145 ft.; plugged to 4,074 ft.; set screen.
Yount Lee Oil Co.'s No. 95 Gladys City, old well	Drlg. sand and shale 4,918 ft.
Yount Lee Oil Co.'s No. 96 Gladys City	Drlg. sand and shale 3,736 ft.
WEST COLUMBIA—BRAZORIA COUNTY	
Continental Oil Co.'s No. 1 Hogg	Drlg. hard lime 3,846 ft.
Gulf Production Co.'s No. 3-B Hogg	Drlg. gumbo 1,332 ft.
Humble Oil & Refg. Co.'s No. 3 Smith	Drlg. sticky shale 3,976 ft.
Saxet Oil Co.'s No. 1 Hogg	Drlg. rock 3,420 ft.
W. L. Pierson's No. 1 Masterson	Set 1 joint screen 1,636 ft.; tested dry; drlg. deeper.
The Texas Company's No. 24 Arnold	Rigging up to pump 2,884 ft.
HIGH ISLAND—GALVESTON COUNTY	
Gulf Production Co.'s No. 4-A Smith	Drlg. 3,239 ft.
Gulf Production Co.'s No. 1 League (workover)	Rig up to work over.
Marrs McLean's No. 6 Cade (old well)	Fishing 3,129 ft.
Marrs McLean's No. 15 Cade	Pulling screen to deepen 4,008 ft.
Marrs McLean's No. 16 Cade	Drlg. 3,061 ft.
ORCHARD—FORT BEND COUNTY	
Gulf Prod. Co.'s No. 19 Moore	Drlg. shale and lime 4,989 ft.
NORTH DAYTON—LIBERTY COUNTY	
Fort Bend Oil Co.'s No. 1 Ballarack	Shut down 4,650 ft.
REFUGIO—REFUGIO COUNTY	
Benedum & Trees' No. 3 Rooke	Rigging up.
Morgan Oil Corp.'s No. 1 Fox heirs	Sand showing oil 3,641-43 ft.; set 6⅝-in. casing 3,641 ft.
Hewitt et al's No. 1 Cemetery	Cem. 12½-in. surface casing 448 ft.
Houston Gulf Gas Co.'s No. 6 Shelly	Drlg. gumbo 5,142 ft.
Houston Gulf Gas Co.'s No. 5 O'Brien	Drlg. hard sand 2,960 ft.
Houston Gulf Gas Co.'s No. 4 Fannie Heard (workover)	Drlg. hard sand 1,918 ft.
Houston Gulf Gas Co.'s No. 8 Fannie Heard	Drlg. 295 ft.
Houston Gulf Gas Co.'s No. 1 Morgan-Skelly	Drlg. plug to test sand 3,660-65 ft.; total depth 4,031 ft.
Houston Gulf Gas Co.'s No. 1 Vance	Drlg. sandy shale 2,153 ft.
Korona Oil Co.'s No. 1 West	Drlg. core sand 3,650 ft.
Korona Oil Co.'s No. 2 Reilly	Drlg. hard sand 3,503 ft.
Mission Drlg. Co.'s No. 1 O'Brien	Gas sand 5,513-21 ft.; cem. 5 3/16-in. casing.
Mission Drlg. Co.'s No. 1 J. F. B. Heard	Reset screen 3,660 ft.; gas sand.
Mission Drlg. Co.'s No. 2 J. F. B. Heard	Comp. flowing 400 bbls. pipe line oil on quarter-inch choke; sand 3,653-59 ft.
Mission Drlg. Co.'s No. 3 Skelly	Derrick.
Mission Drlg. Co.'s No. 1 Strauch	Cem. 8¼-in. casing to test sand 3,629 ft.
Mission Drlg. Co.'s No. 1 Fox (workover)	Deepened from 3,675 to 3,678 ft.; set screen.
Mission Drlg. Co.'s No. 2 Mitchell	Drlg. gumbo 1,350 ft.
Oigufer Oil Co.'s No. 3 Ryals	Rig.
Saxet Oil Co.'s No. 1 Serafine	Rig.
Saxet Oil Co.'s No. 1 City	Sand showing oil 3,651-52 ft.; cem. 6⅝-in. casing 3,650 ft.
Saxet Oil Co.'s No. 10 Clade Heard	Set 10-in. surface casing 500 ft.
Saxet Oil Co.'s No. 1 Fox heirs	Set 10-in. surface casing 507 ft.
Houston Oil Co.'s No. 8 Wilson Heard	Drlg. sandy shale 3,062 ft.
Houston Oil Co.'s No. 6 Fannie Heard (workover)	Waiting cement to set.
Houston Oil Co.'s No. 10 Pratt-Hewitt-Rooke	Rig.
Houston Oil Co.'s No. 2 F. Rooke	Derrick.
Independent Oil & Gas Co.'s No. 1 O'Brien	Drlg. shale 1,475 ft.
W. L. Pearson, trustee, No. 2 Fox	Derrick.
Sun Oil Co.'s No. 2 Buckley	Comp. flowing 150 bbls. pipe line oil 5/16-in. choke; sand 3,697-3,707 ft.
Sun Oil Co.'s No. 1 Leisering	Derrick.
Sun Oil Co.'s No. 2 Leisering	Location.
Sun Oil Co.'s No. 1 Johnson	Sand showing oil 3,674-85 ft.; cem. 6⅝-in. casing 3,663 ft.
Texas Gas Co.'s No. 1 Rogers	Killed 1,400 lbs. gas pressure 3,686 ft.; to deepen.
Union Exploration Co.'s No. 2 Rooke	Comp. as gas well in sand 3,665-71 ft.; no estimate of volume.
SOUTH LOUISIANA FIELDS	
LOCKPORT—CALCASIEU PARISH	
Shell Petroleum Corp.'s No. 1 Miller	Drlg. packed sand 6,888 ft.
Vacuum & Gulf's No. 15 Miller	Comp. flowing 500 bbls. fluid; 90 per cent water 4,380 ft.
Vacuum & Gulf's No. 3 State	To resume drilling 4,901 ft.
Vacuum Oil Co.'s No. 3-A fee	Comp. flowing 325 bbls. pipe line oil 3,977 ft.
HACKBERRY—CAMERON PARISH	
Calcasieu Oil Co.'s No. 3 Lemke	Drlg. sand showing oil 3,667 ft.
Calcasieu Oil Co.'s No. 7 Dorion, East Hackberry	Started drilling.
Calcasieu Oil Co.'s No. 15 Watkins, East Hackberry	Comp. pumping 112 bbls. oil 3,975 ft.
Fraim Oil Co.'s No. 1 Duhon, Old Hackberry	Drlg. gumbo 3,597 ft.
Rycade Oil Corp.-Humble Oil & Refg. Co.'s No. 3 Gulf Land, Old Hackberry	Oil sand 3,850-82 ft.; set screen.
Sunshine Oil Co.'s No. 2 Ellender, Old Hackberry	Drlg. gumbo 3,112 ft.
Sunshine Oil Co.'s No. 3 Ellender, Old Hackberry	Drlg. gumbo 2,500 ft.
The Texas Company's No. 5-B Calcasieu Lake, East Hackberry	Abandoned in anhydrite 4,229 ft.
Yount Lee Oil Co.'s No. 9 School Land (Old Hackberry)	Sand and shale 5,731 ft.
Yount Lee Oil Co.'s No. 1 Carter & Sweeney	Drlg. 1,700 ft.
Yount Lee Oil Co.'s No. 1 Lacey	Drlg. 1,532 ft.
JENNINGS—ACADIA PARISH	
Fred Getty's No. 3 Jennings-Clemont	Location.
Kathleen Oil Co.'s No. 1 Syndicate fee	To pump 3,924 ft.
S. L. Moyers' No. 1 Clemont-Zigler (old well)	To work over 1,805 ft.
The Texas Company's No. 5 Rayne heirs (King tract)	Drlg. gumbo 1,987 ft.
Yount Lee Oil Co.'s No. 4 Crowley, northeast flank, Section 48-9s-2w	Core hard sand showing gas 7,681 ft.
Yount Lee Oil Co.'s No. 5 Crowley, Sec. 48-9s-2w	Location.
Yount Lee Oil Co.'s No. 7 Houssiere-Latrielle, Sec. 47-9s-2w	Drlg. hard sand 6,152 ft.
EDGERLY—CALCASIEU PARISH	
C. M. Crotty's No. 15 Lillard	Shut down 1,249 ft.
Rex Petroleum Co.'s No. 10 Hunter (workover)	Tested salt water 4,812 ft.; pulling liner to deepen.
VINTON—CALCASIEU PARISH	
Gulf Refining Co.'s No. 1 J. W. Gardner	Rig.
Gulf Refining Co.'s No. 48 Star Vincent, Sec. 34-10s-12w	Drlg. 2,861 ft.
Vinton Petroleum Co.'s No. 2 Matilda Gray (workover)	Standing 3,132 ft.
Marrs McLean's No. 4 Gray (workover)	Drlg. 1,879 ft.
BAYOU BOUILLON—ST. MARTIN PARISH	
Rycade Oil Corp.'s No. 7 Bouillon fee	Drlg. hard sandy shale and lime 4,427 ft.
Rycade Oil Corp.'s No. 3 State (former well)	Sidetracking 3,517 ft.
SORRENTO—ASCENSION PARISH	
Gulf Refining Co.'s No. 15 United, Sec. 22-10S-4e	Aband. in heaving shale 5,700 ft.
STARKS—CALCASIEU PARISH	
Gulf Refining Co.'s No. 11 Lutcher-Moore (workover)	Pulling screen to deepen.
SULPHUR—CALCASIEU PARISH	
Union Sulphur Co.'s No. 750 Fee	No report.
Union Sulphur Co.'s No. 751 Fee	No report.
SWEET LAKE—CAMERON PARISH	
Pure Oil Co.'s No. 7 Yount Lee	Standing cemented 4,381 ft.

ANSE LA BUTTE—ST. MARTIN PARISH

Yount Lee Oil Co.'s No. 5 Louisiana Pet. Co. .....Drlg. 3,800 ft.
Bowie Oil & Gas Co.'s No. 5 Begnaud .....No report.

MISCELLANEOUS WILDCATS

TEXAS

AUSTIN COUNTY

Whittington et al's No. 1 Lass, 4 miles northwest of Bellville .....No report.

BRAZORIA COUNTY

Faust et al's No. 5 Faust .....Drlg. sand and lime 1,103 ft.
Steel & Strickland's No. 1 Lockridge .....Rig.

CHAMBERS COUNTY

Chicago Oil Corp.'s No. 1 Lawrence .....Shut down in gumbo 1,200 ft.
Layne et al's No. 1 Fitzgerald .....Shut down in rock 2,635 ft.
Pure Oil Co.'s No. 1 Mayes (workover) .....To deepen.
Pure Oil Co.'s No. 3 Lost Lake, Lost Lake .....Drlg. gumbo 995 ft.

FORT BEND COUNTY

Gulf Production Co.'s No. 12 Trone, Long Point .....Drlg. shale 4,724 ft.
Grayburg Oil Co.'s No. 1 Ranson .....Drlg. shale 3,850 ft.

HARRIS COUNTY

Baldwin and associates' No. 1 Kitzman, Cypress .....Standing 4,055 ft.
Gulf Crest Oil Co.'s No. 1 Gulf Crest .....Drlg. gumbo 1,450 ft.
A. F. Belunek's No. 1 Thompson .....Rig.
Hammond et al's No. 1 Brodt .....Drlg. gumbo 360 ft.
Humble Oil & Refg. Co.'s No. 6 Warren Hockley .....Drlg. 3,560 ft.
Humble Oil & Refg. Co.'s No. 1 Sidious Mykawa .....Drlg. gumbo 315 ft.
Humble Oil & Refg. Co.'s No. 1 Woodburn, Genoa .....Drlg. shale 5,348 ft.
Rich et al's No. 1 Highlands .....Derrick.
York & Robertson's No. 1 Garrett, Harris & Carpenter Sur. .....Sandy shale 1,917 ft.; shut down.

JEFFERSON COUNTY

Bleakie Oil Co.'s No. 1 Tolliver, Dyches Sur. .....Shut down 2,800 ft.
Deep Test Oil Corp.'s No. 1 Faith-McFadden .....Shut down 3,706 ft.
Gulf Production Co.'s No. 3 Burrell Fannette .....Drlg. shale 4,197 ft.
Gulf Production Co.'s No. 1 Junker, Fannette .....Drlg. shale 2,738 ft.
Gulf Production Co.'s No. 11 Thomas, Fannette (workover) .....Rigging up to pump 5,636 ft.
Gulf Production Co.'s No. 12 Thomas, Fannette .....Drlg. 2,650 ft.
River Oil Corp.'s No. 1 Ship Channel, Brown Survey .....No report.
Shell Petroleum Corp.'s No. 1 Heisig, Hampshire .....Reaming hard sandy shale 6,868 ft.
The Texas Company's No. 2 Pipkin, Big Hill .....Drlg. water sand 3,075 ft.
The Texas Company's No. 1 Fitzhugh, Big Hill .....Rig.
The Texas Company's No. 1 Burrell, Fannette .....Drlg. gumbo and lime 2,901 ft.
Vacuum Oil Co.'s No. 1 Herbert-Broussard, T.&N.O. Sur. No. 208 .....Drlg. sticky shale 3,704 ft.
Westbury Oil Co.'s No. 1 West .....Shut down; total depth 2,980 ft.

LIBERTY COUNTY

Gulf Production Co.'s No. 1 Weiser .....Rigging up.
Gulf Production Co.'s No. 2 Boyt, Hankamer .....Repairing rig to deepen 3,692 ft.
Humble Oil & Refg. Co.'s No. 6 Sterling, Moss Bluff .....Drlg. gumbo 331 ft.
Pure Oil Co.'s No. 1 Liberty, Moss Bluff .....Drlg. gumbo 4,725 ft.
Union Exploration Co.'s No. 1 Vajdak, Sheeks .....Rig.
Union Exploration Co.'s No. 4 Esperson, Sheeks .....Rig.

MONTGOMERY COUNTY

Kelley-Baker et al's No. 1 Juerges .....No report.

ORANGE COUNTY

Galperin et al's No. 1 Mansfield .....Derrick.
Gulf Production Co.'s No. 1 J. H. Starks, Port Neches .....Rig.
Gulf Production Co.'s No. 1 M. H. Starks, Port Neches .....Location.
The Texas Company's No. 1 Polk, Port Neches .....Location.
The Texas Company's No. 1 Starks, Port Neches .....Sticky shale 2,982 ft.; reaming.

WALLER COUNTY

Kirby Petroleum Co.'s No. 1 Vaughn, San Felipe .....Aband. cap rock 3,327 ft.

SOUTH LOUISIANA

ASCENSION PARISH

Triumph Oil Corp.'s No. 2 Lacey, Sec. 20-10s-4e .....No report.

CALCASIEU PARISH

Wilfred LaHay's No. 2 James, Sec. 14-10s-13w .....Shut down 3,365 ft.
J. O. Davis' No. 1 Mims, Sec. 20-9s-7w .....Standing 5,600 ft.

CAMERON PARISH

Shell Pet. Corp.'s No. 6 Watkins, Black Bayou .....Shaly sand 4,727 ft.; changing boilers.
Shell Pet. Corp.'s No. 11 Watkins, Black Bayou .....Aband. 1,830 ft.
Shell Pet. Co.'s No. 12 Watkins, Black Bayou .....Drlg. hard sand 3,765 ft.
Shell Pet. Corp.'s No. 13 Watkins, Black Bayou .....Rigging up.
Shell Pet. Corp.'s No. 11 Watkins, Black Bayou .....Location.
Shell Pet. Corp.'s No. 1 Marceaux, Mallard Bay, Sec. 32-12s-3w .....Spudded.
The Texas Company's No. 4-A Calcasieu Lake, Calcasieu Lake Dome .....Waiting rig.
Yount Lee Oil Co.'s No. 1 Starks, Sec. 1-15s-15w .....Drlg. gumbo 540 ft.

EVANGELINE PARISH

The Texas Company's No. 1 Guillory, Pine Prairie .....Sandy shale 3,883 ft.

IBERIA PARISH

Jefferson Lake Oil Co.'s No. 2 Lake Peigneur, Jefferson Island .....Abandoned in salt.
The Texas Company's No. 4-A Vermillion Bay .....Waiting rig.

IBERVILLE PARISH

Shell Petroleum Corp.'s No. 3 Wilbert, White Castle .....Total depth 6,029 ft. in salt; trying to plug back.
Standard Oil Co.'s No. 3 Wilbert, Bayou Blue .....Set screen 1,925 ft. and made few heads; hole standing full of oil.
Standard Oil Co.'s No. 2 Schwing, Bayou Blue .....No report.
Standard Oil Co.'s No. 3 Schwing, Bayou Blue .....Location.
Standard Oil Co.'s No. 4 Schwing, Bayou Blue .....Location.
Standard Oil Co.'s No. 5 Schwing, Bayou Blue .....Derrick.

JEFFERSON DAVIS PARISH

Vacuum Oil Co.'s No. 2 DeVilbiss, Roanoke .....Bailed dry but showed 50 ft. in hole after standing; sand 4,339 ft.; waiting orders.

PLAQUEMINE PARISH

The Texas Company's No. 2 Garden Island Bay, Sec. 107-23s-32e .....Standing.
Humble Oil & Refg. Co.'s No. 1 Cockrell-Moran, Sec. 2-20s-26e .....No report.

ST. BERNARD PARISH

St. Bernard Oil & Gas Co.'s No. 1 Fee, Sec. 15-14s-15e .....Shut down 726 ft.

ST. LANDRY PARISH

Gulf Refining Co.'s No. 2 Gaudet, Port Barre .....Location.

ST. MARTIN PARISH

Ohio Oil Co.'s No. 3 Martin, Hager Dome .....Standing 4,490 ft.
The Texas Company's No. 1 fee, Hager Dome .....Drlg. 4,521 ft.
The Texas Company's No. 2 St. Martin, Hager .....Rig standing.
The Texas Company's No. 3 Fee, Hager .....Location.
The Texas Company's No. 4 Fee, Hager .....Location.
The Texas Company's No. 1 Iberville, Hager .....Derrick.
The Texas Company's No. 2 Iberville, Hager .....Location.
The Texas Company's No. 3 Iberville, Hager .....Location.

ST. TAMMANY PARISH

St. Tammany Oil Co.'s No. 2 Fritchie, Sec. 35-8s-14e .....Shut down 3,032 ft.

TANGIPAHOA PARISH

Completion Oil Co.'s No. 1 Amos .....No report.
Joan Development Co.'s No. 1 Hilton, Sec. 20-9s-9e .....Cem. 6⅝-in. casing 3,695 ft.; standing.

TERREBONNE PARISH

Charles Paggi's No. 1 Evergreen, Sec. 145-15s-16e .....Location.
The Texas Company's No. 2-A Dog Lake Bayou, 400 ft. south of No. 1 .....Derrick.
The Texas Company's No. 1-B Dog Lake, Sec. 6-22s-16e .....Drlg. sandy shale showing oil and gas 1,266 ft.
The Texas Company's No. 1 Taylor, East Bay Junop Dome .....Drlg. sandy shale 2,427 ft.
The Texas Company's No. 2-A Lake Barre, Section 30-21e-20e .....Drlg. sandy shale 3,849 ft.
The Texas Company's No. 2-B Bay Coon Road, Sec. 17-22s-18e .....Gas killed; waiting orders 971 ft.
The Texas Company's No. 3-B Bay Coon Road, Sec. 17-22e-18e .....Derrick.
The Texas Company's No. 2 La. L. L. & E. Co., Four Isle .....Rig.

CALIFORNIA FIELDS

(Continued from Page 56)

the important factor which many had anticipated. The upper Clarke failed to come up to expectations and the lower Clarke is already showing unmistakable evidence of depletion, notwithstanding it is still yielding good wells. The Hathaway zone, on the other hand, which is encountered on top of the structure around the 7,500-foot level, appears to have tremendous possibilities. The potentiality of this zone, which some designate as the third Clarke, is evidenced by the completion of a 7,925-bbl. well within the past few days. The significance which attaches to the completion of this new producer is not due to the large production shown but rather to its location on the structure. The well is the Sunset Pacific's No. 2 Santa Fe, which came in flowing 7,925 bbls. of 33.9 gravity oil and approximately 10,000,000 feet of natural gas daily from 8,053 feet.

The importance of this completion and its probable effect on future development is quite evident to field men in view of the fact that adjoining wells failed to develop substantial production in the immediately overlying Clarke zone. It is located rather well out on the flank of the structure and will undoubtedly stimulate additional deep drilling as it is drawing from 263 feet of solid oil sand. Preparations are being made to resume drilling in several adjacent wells which failed to secure production in the upper Clarke zone and a further additional increase in development is anticipated. Operators holding acreage on the apex of the structure and within the second and third production contour lines view the completion of this well with considerable optimism as it definitely proves up their respective properties for substantial production when this zone is ultimately developed. It might not be amiss to mention the fact that there are approximately 50 wells headed down for the Hathaway zone on top of the structure at the present time and a number of others are scheduled to be started in the near future. The Union, Shell, Texas, General Petroleum and others already have a number of wells headed down with this zone as their objective and several of them should be tanking oil within the next few weeks. The Sunset Pacific's big well, which is absolutely clean, indicates the existence of a major zone both in areal extent and productivity. The potentiality of the Hathaway horizon has been recognized for some time but the Sunset Pacific's well has exceeded even the most sanguine expectations.

General Petroleum Wells

The General Petroleum's field department has just closed an exceedingly busy week due to the completion of five wells which showed an aggregate initial daily production of 8,838 bbls. The largest of this group was No. 161-B Santa Fe, a recompletion which was returned to production flowing 5,050 bbls. of clean 33.8 gravity oil daily after being redrilled and deepened to 6,850 feet. No. 104 Hill Community, an O'Connell zone completion, only showed an initial of 695 bbls. daily from 6,834 feet, but No. 191-E Santa Fe, another O'Connell zone well, was somewhat larger as it started off doing 1,758 bbls. per day from 6,940 feet. No. 212 Santa Fe, a new well, came in flowing 980 bbls. daily from 7,520 feet, the hole having been plugged back from 7,813 feet. No. 145-C Santa Fe, the only Nordstrum zone well chalked up during the week, showed an initial of 355 bbls. daily from 5,412 feet. The Union Oil Co. also experienced a successful week as three new wells were listed for completion in the O'Connell zone. These were No. 29 Bell, which came in doing 3,000 bbls. daily from 6,860 feet. No. 12 Farwell, flowing 920 bbls. per day from 6,825 feet and No. 18 Alexander, which tanked 1,660 bbls. during the initial 24-hour flow from 6,850 feet. No. 29 Bell painted the derrick in beautiful shape when it blew in prematurely and ran wild for about ten minutes. It is the usual custom to wash out rotary drilled wells just previous to completion in order to facilitate production. The Union recently concluded a series of tests to determine if any advantage accrued to the washing out of potential producers with oil instead of water. The performance of No. 29 Bell decided the issue in very definite terms as it came in sooner than anyone expected.

The Universal Consolidated finished a nice well when No. 11 Blanchard was recompleted in the Clarke zone at 7,681 feet, as this former upper zone producer registered an initial 4,600 bbls. of clean 33.8 gravity oil and 2,100,000 feet of natural gas upon being returned to production. The Ambassador Petroleum's No. 12 Baker, another former upper zone producer, also showed substantial production upon recompletion in the Clarke zone at 7,800 feet, from which depth it made 2,340 bbls. of clean pipe line oil daily. No. 1 Archer of the Italo Petroleum and No. 1 Ratliff of the Macmillan Petroleum Co. were on about a par upon completion in the lower Clarke zone as the former made 3,320 bbls. daily from 7,804 feet and the latter 3,310 bbls. per day from 7,950 feet. The Associated Oil Co. wound up the week by completing No. 8 Dewenter, a new well in the O'Connell zone doing 2,405 bbls. of clean 33.9 gravity oil daily from 6,835 feet. The Bell View Oil Co. recompleted No. 2 Grohs doing 2,490 bbls. per day from 6,282 feet. The Shell Oil Co. increased its list of producers by finishing two wells, although one of them, No. 24 Golay, was wet and will probably require further work. No. 15-B Slusher, however, was a good well as it is yielding 3,950 bbls. of clean pipe line oil daily from 7,885 feet.

Possible New Oil Field

The General Petroleum focused the attention of operators on the Santa Barbara area this week when it cored 56 feet of solid oil sand in its No. 1 Erburu, a wildcat located near Capitan. The bit was still in the oil sand when drilling was concluded at 1,348 feet for the purpose of landing a string of pipe preliminary to an early test. The extremely high saturation of the oil sand cored in the Vaqueros formation and the rather heavy gas pressure encountered tends to indicate that a new field will probably be opened up at this point. No. 1 Erburu, a joint test being drilled by the General Petroleum and Shell Oil Co., is located on a rather promising anticlinal structure which appears to be controlled almost entirely by the General Petroleum, Shell and Standard, although subsequent development may prove the existence of a much larger field than is anticipated. The discovery well is located on a 350-acre lease situated approximately 8 miles west on the prolific Elwood Field of Santa Barbara County.

The oil sand cored by the General Petroleum in its Capitan wildcat, located just east of Orella, is of special significance as it tends to indicate the probable existence of a series of oil fields extending westward from Summerland to Point Conception, a distance of approximately 50 miles. In addition to the discovery of a possible new productive area at Capitan, development work has already proven up the existence of three fields. From east to west these are the Summerland, Santa Barbara Mesa and Elwood Fields of Santa Barbara County. The Continental Oil Co. may add another new field to this string at a later date as its exploration work at Carpenteria has been unusually promising. The first well drilled by the Continental at Carpenteria, which area is about 10 miles west of Santa Barbara and approximately 15 miles west of the Rincon Field, developed such a high gas pressure the company was unable to proceed with further work. The company was obliged to start a second test and this well has just recovered from a fishing job of several months' duration. The company's No. 2 Carpenteria, like the initial test, has also shown considerable gas but the company has not up to a late hour actually cored an oil sand. Subsequent work, however, may prove more successful as there is

a probability a third test will be drilled west of the original wildcat.

Gulf May Add New Field

The Western Gulf Oil Co., a subsidiary of the Gulf Production Co., may also add another new field to complete the chain from Summerland and Carpenteria westward to Point Conception, as this company is developing a rather promising anticline on the Hollister ranch just west of Gaviota. The Western Gulf's first test on this property ran wild for several days flowing at the rate of approximately 50,000,000 feet of natural gas daily more than a month ago. This gasser was subsequently brought under control and while it did not produce any oil the natural gas was sufficiently saturated to precipitate a fine mist of casinghead gasoline. This showing originated in the Vaqueros formation although the hole was subsequently carried down into the underlying Sespe formation previous to abandonment. The Gulf has started a second well on the Hollister anticline and the outcome of this work may bear watching in view of the large amount of gas shown by the initial test. The General Petroleum's No. 1 More, located approximately 4 miles east of the Elwood Field, will also bear watching as it too has shown a large accumulation of natural gas. This project blew in several weeks ago flowing at the rate of approximately 50,000,000 feet of natural gas daily and was not brought under control until almost a week later. It was subsequently killed and the company is proceeding with work with a good chance of opening up a new field at this point.

Long Beach

Three wells were put on production in the Long Beach Field during the week, one of more than ordinary importance. This was the Petroleo Syndicate's No. 1 Myers, a new well in the extreme southeastern end of the field. It came in flowing at the rate of 400 bbls. per day from the Miocene at 6,980 feet but has subsequently built up to 1,140 bbls. daily, the pressure in the meantime building up to 760 pounds. The Rio Grande Oil Co. recompleted No. 2 Law this week doing 860 bbls. daily from 6,928 feet after redrilling and deepening it from the upper to the lower zone. The Magnet Oil Co. also added a recompletion at Long Beach this week when No. 1 Signal was returned to production doing 745 bbls. daily from 7,200 feet. The Lincoln Drilling Co. has finished its second producer in the Summerland Field of Santa Barbara where it proved up the existence of a second productive horizon about two months ago. The Lincoln's new well No. 2 Williams, is pumping 150 bbls. per day from 1,467 feet, the hole having been finished with an 8¼-inch oil string carrying 360 feet of 80 mesh screen.

Midway-Sunset

Several new wells are being prepared for production tests out in the Maricopa flats section of the Midway-Sunset Field of Kern County where the Signal Oil & Gas Co. finished a large flowing well early this year and a check indicates two or three of them should be tanking oil within 10 days. In the older section of the Midway-Sunset Field the Chanslor-Canfield Midway Oil Co. completed No. 8 in Section 7-32-23 doing 675 bbls. of clean 22.1 gravity oil daily from 3,018 feet. Production of the Richfield Oil Co. has been increased 2,500 bbls. daily as the result of opening up 11 wells out on the west front area of the Kern River Field, none of which had ever been produced as they were shut in immediately upon completion. These wells are all located on Section 22-28-27 on property acquired when Richfield took over the Pan American. Thirteen consecutive successful completions averaging 300 bbls. each have been completed on this section and 17 additional wells are either already being drilled or scheduled to be drilled in the near future. The first completion on this property was in March, 1929, with others following at the rate of two per month. The drilling program was purely a defensive one, as Richfield, in an endeavor to conserve oil from this field, has kept the wells shut in. However, other companies owning offset production have been producing from wells on the boundaries of Section 22, and to meet this competition and to keep its own property from being drained the Richfield's wells were turned into the pipe line. Two wells are still shut in on this property as they are offsets to wells which are being kept shut in by their owners and until such time as they are opened up Richfield will refrain from producing from this pair.

According to W. E. (Steve) Dunlap, manager of production, this property should be good for 7,500 bbls. daily settled production over a long period of years, as the history of wells on the Kern front shows that while, individually, wells are small as to daily output, they have many years of life. It is anticipated that the 30-well program for the property will be completed in May, 1930, but that probably not more than 4,000 bbls. daily will be produced unless other offsetting companies abrogate present conservation agreements. Two new wells were finished in the Ventura Avenue Field this week, both standing to the credit of the Associated Oil Co. No. 6 Ventura Land and Water, was good for 2,160 bbls. daily from 7,585 feet, while No. 16 Hartman registered an initial of 479 bbls. from 6,787 feet

ROCKY MOUNTAIN AREA

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16-8n-10e, Torrance County, is drilling at 867 feet in lime and gypsum. It had a hole full of water at 860 feet.

UTAH

Drilling operations in Utah are confined to a few active wells. The Continental Oil Co.'s No. 1 Boundary Butte, Section 22-43-22, San Juan County, is drilling in the lower Pennsylvania at 5,516 feet, and the Utah Southern Oil Co.'s No. 1 King, Section 13-23-20, Grand County, is sidetracking pipe. The Leonora Mining & Milling Co.'s No. 1, Section 9-8n-7w, Box Elder County, is drilling at 2,647 feet in dark shale.

The Utah Oil Refining Co.'s test on the Butler Valley structure in Kane County, in the southern part of the State is expected to get under way this fall. The road which is being constructed from Cannonville to the structure, 18 miles, probably will be completed this week and moving in of equipment then will start. Extensive geological surveys have been completed by the company's geologists. The first objective will be the Shinarump conglomerate at 2,500 to 2,700 feet, followed by Moenkopi and Kaibab sands of Pennsylvanian age.

COLORADO

The Texas Production Co.'s No. 1 Berlin, SW SW NE, Section 19-12n-100, Bartram Dome, Moffat County, Colorado, which last week was reported making 16 000,000 feet of gas from the Wasatch formation of Tertiary age at a total depth of 1,535 feet, was deepened to 1,575 feet and the gas increased. The flow gauged 36,700,000 feet and, shut in, had a pressure of 610 pounds to the square inch. The operation has been shut down for orders and it is not yet known whether the well will be completed as a gasser or drilled deeper. This well is on a local high on the Hiawatha fold and approximately 3 miles west of the big gassers on the Hiawatha Dome. It is the pioneer well on the Bartram Dome and the discovery is considered an important one. The horizon in which the gas was found is believed to be a formation above the first big gas sand on the Hiawatha Dome and may prove to be the same sand which is found 450 feet above the pay in the wells to the east.

If this proves to be true it will further enhance the importance of the discovery as this sand on the Hiawatha Dome carries water and the intervening territory most likely will be found productive. That would mean a 3-mile extension of the Hiawatha Field to the west while the new discovery just made in the Mountain Fuel Supply Co.'s No. 1 Newberry, SE cor., Section 13-12-100, on the Wyoming side further extends the proven area to the north a half mile. The two wells, if the sands are found to be continuous, will give a proven area for the Hiawatha gas field approximately 2 miles wide in a north and south direction and 3½ miles lond in an east-west trend. No. 1 Newberry is bottomed at 2,367 feet on top of the gas sand and is underreaming the 10-inch to set before drilling in and completing. This well is estimated good for 40,000,000 to 50,000,000 feet of gas. It is approximately 200 feet lower on structure than No. 1 Wilson, SE cor., Section 24-12-100, on the Wyoming side, which was completed in 1928 at 2,240 feet with an open flow capacity of 44,000,000 feet.

The Hiawatha Field made possible the construction of the Wyoming-Utah gas line of the Western Public Service Co. This line is nearing completion. The two new discoveries assures an abundance of gas for Utah regardless of the Baxter Basin and Clay Basin supplies. Much of the credit for bringing in the Hiawatha Field is due to William A. Myers, who for more than six years faced difficulties that seemed almost unsurmountable in bringing about a test of the fold. There were doubts about the possibilities of the Tertiary formations and other adverse features which hindered development. Myers was in charge of operations for the eastern syndicate which brought in the discovery well on the Colorado side several years ago and which assured an ample supply of gas to justify the pipe line to Utah. The possibilities of the Hiawatha area for oil production in deeper sands or on the flanks are considered very favorable. No. 1 Wilson showed for 8 to 10 bbls. a day of high grade paraffin base oil testing 41 degrees gravity at 2,070 feet and the Mountain Fuel Supply Co.'s No. 1 Humphreys, SW cor. NE, Section 2-12-101, Canon Creek Dome,on the Wyoming side, also had a show of oil of 42 degrees gravity at 3,540 feet. The oil has a paraffin base and congeals at 60 degrees.

Rio Blanco County

The White Eagle Oil & Refining Co.'s No. 1-A Fordham, NW SW, Section 9-2s-96, Piceance Creek structure, Rio Blanco County, a test entirely in the Green River formation of Tertiary age, continues to be the most closely watched wildcat in Colorado. The sand in which the gas was found recently was at 2,661-64 feet, the sand being only 3 feet thick. It made approximately 3,000,000 feet of gas which has been bradenheaded off to be used for fuel. The drill went out of the sand back into shales alternating between dark and buff colors and is drilling in that formation at 2,760 feet without any marked change in conditions. The 8¼-inch will be run as the hole is caving some. Representatives of a large number of the major companies were present when the well was drilled in. The only other active operation in Rio Blanco County is the Texas Production Co.'s No. 1 Potter, NE SW, Section 30-2n-96, White River structure, a test of Tertiary formations, which is shut down temporarily at 3,841 feet for fuel.

In Larimer County, the Five Square Oil & Gas Co.'s No. 1-A State, SW cor., Section 16-4n-69, Berthoud Dome, which is being completed by the Standard Oil Co. of Colorado, Inc., a local concern, is bottomed at 3,781 feet and is being prepared for a production test. It is through the Muddy formation which was 52 feet thick, and has been tubed with a string of 2-inch. The well makes occasional flows by heads, averaging around 25 bbls. at each head. The 500-bbl. storage tank is full and arrangements are being made for additional tankage. The Standard Oil Co. of Colorado which recently took over the Left Hand Oil Co.'s acreage in Boulder County and secured extensive holdings on the Berthoud Dome as a result of its deal with the Five Square Co., is building rig for its No. 1 Hertha, NW cor., Section 21-4n-69, one location to the south of No. 1-A State. This company also is erecting a rig in the SE cor. Section 33-3n-70, in Boulder County for a test on the Left Hand Creek structure. This location is slightly changed from its No. 1 Crane which spudded in last month and shut down pending completion of deal. This well is one-fourth of a mile southwest of No. 1 Precthl, which the Left Hand Co. drilled a year or two ago and which had favorable showings of oil and gas in the Muddy sand at a comparatively shallow depth.

Wellington Dome

The Continental Oil Co.'s No. 4 Scott, NE SE, Section 6-9n-68, the only active operation on the Wellington Dome, is bottomed at 2,200 feet and fishing for bailer. C. E. Johnson and others' No. 1 Campbell, in the town of Lyons, Section 18-3n-70, which has been idle at 47 feet, is to be drilled a little deeper though this operation does not offer much encouragement. Their No. 2 Campbell and No. 1 McFadden, both of which were shallow tests, are being abandoned. It will be recalled that these wells had showings of unusually light oil at a depth of only 50 to 60 feet. The operation also has been taken over by the Standard Oil Co. of Colorado and a deep test may be drilled at some future date.

In Jackson County, the Producers & Refiners Corp.'s No. 1 Hendershot, SE NE, Section 2-6n-81, Pole Mountain area, is bottomed at 2,495 feet in shale and shells and is underreaming the 10-inch at 2,463 feet to make a formation shutoff as the hole is caving. The Midwest Refining Co.'s No. 21-X Rich, SW NW, Section 9-6n-80, Buffalo Creek, is drilling at 2,120 feet in light and black shades.

In Routt County, the Texas Production Co.'s No. 3 Carstarphen, SW NE NW, Section 5-6n-86, Tow Creek Dome, is building road preliminary to moving in. This location is an offset on the north to No. 2 Carstarphen which made 80 bbls. initial at 3,435 feet when completed in 1928, and half a mile north of No. 1 McNeill, which was abandoned in 1927. This appears to be a separate pool from Tow Creek proper and several good wells have been completed in that area. Same company's No. 2 State-Lubers, SW SE, Section 7-6n-86, is bottomed at 2,624 feet and is running the 8¼-inch. The Midwest Refining Co.'s No. 10 Barmettlor & Clayton, NE NW, Section 4-7n-86, Chimney Creek, is bottomed at 1,420 feet in gray shale and is running the 10-inch. The Dakota sand was cut at 1,135-80 feet. The test is headed for the Sundance which has never been drilled on this structure. Thomas McLaughlin and others' No. 1 Williams, NW SW, Section 2-3n-92, south of the Iles Dome in Moffat County, is drilling in the Morrison at 4,205 feet and is estimated to be 70 feet off the objective Sundance.

In Yuma County, the Major Petroleum Inc.'s No. 1 Winegar, SE NW, Section 7-2s-43, is shut down at 1,535 feet, and the Phillips Petroleum Co.'s No. 1 Andrews, NW NW, Section 3-2s-42, is drilling at 3,535 feet in the red beds. In Washington County, M. T. Smith & Sons' No. 1 Middlemist, SW SE, Section 14-4s-56, has commenced spudding.

In Pueblo County, the Kime Petroleum Co.'s No. 1 Unger, NE NE, Section 5-26s-61, Apishipa structure, was dry and abandoned at around 1,000 feet. In Las Animas County, the Helium Co.'s No. 1 Morris-Cowdery, NW SW SE, Section 35-29s-60, Model Dome, is spudding at 227 feet, and its No. 1 Huff, SW SE NW, Section 35-29-60, was completed as a 1,000,000-foot gas well at 1,004-47 feet. This is the new helium gas field which the company is developing in Colorado. The Trinidad Development Co.'s No. 1 Flonz, SE SW, Section 23-32-63, is drilling at 1,550 feet. The Coastal Oil Co., of Houston, is reported blocking up leases south of Manzanola, in the southeastern part of the State. It has contracted some 11,000 acres. Part of the acreage is owned by negroes and some is included in estates. A colored geologist is reported to have worked out a structure.

WYOMING

Wyoming reported more than the usual number of interesting developments this week. One of the more important was the completion of the Midwest Refining Co.'s No. 36 Rosenberg, SE cor. NW, Section 25-58-98, on the Frannie struc-

ture in Park County in the Big Horn Basin. Two wells previously had been completed in the pay on this dome. The discovery well, Arnold-Mau's No. 1 Rosenberg, NE NW NW, Section 25-58-98, was completed in November, 1928, at 2,612 feet and averaged 350 bbls. a day in the first week from the top of the Embar. The operation subsequently was taken over by the Midwest and last June it completed its No. 36 Kirk-Peters, SE cor. Section 23-58-98, at 2,811 feet with an initial production of 110 bbls. Both wells are north of the most northerly of the two major faults which bisect the dome. No. 36 Rosenberg, one-fourth of a mile to the southeast of the discovery, was spotted just to the north of the southern fault and was intended to test the fault block. Although it was approximately 200 feet lower stratigraphically than the discovery well, it topped the Embar at approximately 2,460 feet, or higher than that formation was found one-fourth of a mile to the northwest. The theory advanced at the time was that it had gone through the fault and entered the Embar on the upthrow side. Both the Embar and Tensleep horizons contained water, but drilling continued and at 3,005-12 feet it cut the first break in the Madison lime. The well swabbed 414 bbls. of oil in 18 hours and is rated as a 500-bbl. well. There was neither gas nor water with the oil. The well as it now stands not only proves a new and lower producing horizon, but is the best well so far completed. An interesting feature of the situation is that the Producers & Refiners Corp. drilled 3 miles to the southeast of the discovery on SE NW, Section 7-57-97, and abandoned the hole at 2,836 feet. Evidently it did not test the lower horizons and the Moody-Seagraves interests are reported having been active in gathering up the Producers & Refiners' discarded leases. The Midwest is drilling one other well on the structure in its No. 1 Rosenberg, NE cor., Section 26-58-98, which is making hole at 1,700 feet in gray shale.

Park County

Along with this development came another discovery in Park County which gives promise of opening another black oil pool. This was in T. N. Clark's No. 1, NW SE SE, Section 11-49-102, on the Spring Creek Dome. This well was started several years ago by the late Noah Clark, of the Omar Oil & Gas Co. It has been completed at a total depth of 3,908 feet, but not tested. It topped the Embar at 3,635 feet and the Tensleep at 3,813 feet. It has approximately 2,000 feet of oil in the hole and is shut down awaiting the erection of 3,000 bbls. of tankage for a test. The Resolute Oil Co.'s No. 1, SW NE, Section 17-57-101, Badger Basin, was bottomed at 3,700 feet and was drilling out cement plug when a fire broke out on the derrick floor and destroyed the rig. Loss is estimated at $15,000. A new rig is being erected. Julius Peters, of Great Falls, Mont., is identified with this operation. The California Exploration Co.'s No. 2, NW NE, Section 14-48-102, Pitchfork structure, is drilling in a 10-inch hole at 1,615 feet with 600 feet of water in the hole. The Ohio Oil Co.'s No. 1 Burlington, Section 21-53-101, Shoshone structure, cemented the 12½-inch at 1,344 feet and is changing over to rotary tools. Nothing outside of routine was reported from the Oregon Basin Field.

Natrona County

In Natrona County, the Prairie Oil & Gas Co.'s No. 1 Baird, NE cor. SW, Section 22-31-81, on the Clark Dome, 20 miles southwest of Casper, found water in the Tensleep and is being abandoned at 3,350 feet. It also had water in all the other sands except that it had a flow of 5,000,000 feet of inert gas in the second Wall Creek at 725 feet. There was one completion in Salt Creek, this being the Wyoming Associated's No. 19-SD-2, SW Section 26-40-79, which made 370 bbls. initial from the second Sundance at a total depth of 2,855 feet. The Fargo-Western Oil Co. is starting its No. 1-A, Section 3-33-83, Poison Spider district, west of Casper. The All-States Oil Co.'s No. 1, SE cor. NW, Section 1-36-82, North Casper Creek, is shut down for tankage at 3,224 feet. It had oil with considerable water from the Embar-Tensleep at 3,198-3,224 feet. Same company's No. 3, SE cor. Section 36-37-82, is drilling at 2,250 feet. The Wyalta Oil Co.'s No. 1 Smith, SE cor. NE, Section 11-38-78, east of Teapot Dome, is drilling at 1,150 feet.

In Niobrara County, the Argo Oil Co.'s No. 7 Wehopeso, SW NW, Section 19-38-60, a test to the Sundance in the Mule Creek Field, cemented the 10-inch at 1,314 feet. It is through the Dakota which carried water. The Lakota, beneath the Dakota, the producing horizon in the field is the lowest formation heretofore drilled.

In Hot Springs County, the Texas Production Co.'s No. 1 Skelton Dome, NW SW, Section 23-45-100, is bottomed at 3,632 feet and underreaming the 8⅝-inch. It probably is in the Morrison formation. The Midwest Refining Co.'s No. 8, NW SE, Section 6-44-98, Wagonhound Dome, is drilling in shale at 870 feet, and the Gebo Consolidated Oil Co.'s No. 1, SW cor., Section 23-44-95, Gebo Dome, is drilling at 1,000 feet. The Frontier is expected within the next 100 feet.

Big Horn County

In Big Horn County, the Producers & Refiners' No. 3, NW NW, Section 24-56-98, Garland Dome, joint with the Kinney-Coastal Oil Co., is bottomed at 4,182 feet in what is presumed to be the top of the Tensleep and is preparing to cement the 4-inch. This well had approximately 3,000,000 feet of sulphur gas in the Embar and 6,000,000 feet of sweet gas in the top of the Tensleep. The latter subsequently increased to about 10,000,000 feet and with it were some sprays of oil. Westland Oils, Inc.'s No. 1, NW NE SE, Section 33-55-95, Alkali structure, commenced spudding September 4 with a machine, and its No. 1 Section 24-54-95, South Alkali, refilled from 180 to 100 feet to straighten a crooked hole. The Ohio Oil Co.'s No. 1 Union Gas, NE NE, Section 22-56-97, Byron Dome, is drilling at 1,522 feet.

In Weston County, in the northeastern corner of the State, the Wyoming Drilling Syndicate's No. 1, NE cor. Section 15-44-64, Howard Dome, is shut down for orders at approximately 5,000 feet. It had some shows of oil in the second Wall Creek at 4,350 feet which may be shot and tested. The Gose Oil Syndicate's deep test on Section 28-47-63, Thornton Dome, is drilling at around 5,000 feet.

In Carbon County in the southern area, the Producers & Refiners Corp. is rigging up for its No. 1, Section 12-24-88, a deep test on the O'Brien Springs structure. This dome is proven for gas in the Frontier. Same company's No. 2, SE NW, Section 34-26-88, Mahoney Dome, a test to the Sundance, is drilling at 2,440 feet in shale and shells and its No. 3, Section 28-21-86, Grenville Dome is drilling at 600 feet in pink shale. The Midwest Refining Co.'s No. 31, SW SE, Section 1-18-78, Dutton Creek, is drilling at 140 feet in gray shale.

The Texas Production Co.'s No. 1-A State, SW SW, Section 36-34-95, Alkali Butte Dome, in Fremont County, is drilling at 315 feet after skidding rig from No. 1 Producers & Refiners' No. 9 C SW SW, Section 15-32-95, Sand Draw, is bottomed at 315 feet and preparing to cement the 12½-inch.

SOUTHWESTERN WYOMING

Southwestern Wyoming, especially Sweetwater County, is showing a considerable increase in activity. The discovery of gas in the Mountain Fuel Supply Co.'s No. 1 Newberry, on the Hiawatha Dome, already has been discussed in connection

(Continued on Page 164)

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Practical Suggestions in Refining

By W. T. Ziegenhain

Explain Experience Gained in Fighting Spreading Oil Fire

As a result of the experience gained in fighting a fire which destroyed the filter house and bone burner at the Continental Refining Co.'s plant at Oil City, Pa., that company has given some suggestions to other plants. The filter house was constructed of brick while the bone burner was enclosed in a galvanized sheet iron building. A solution of bright stock and naphtha flashed and threatened the wax house and bright stock plant. These buildings were only 10 feet from the filter house, but by playing water on the edge of the flaming oil it was kept back. Sufficient water was at hand to keep the surroundings cool and as a result the damage was restricted to the filters and bone burner.

Ammonia coils in the wax house had been located along the wall nearest the filter house and directly in front of large glass windows. Although the windows were broken by the heat, the coils remained intact, but these were a constant hazard while fighting the fire for fear they would burst and free the ammonia which would make it almost impossible to fight the fire and keep it from spreading. From this experience, the company has suggested that ammonia coils be kept away from openings which are exposed to other buildings which might burn.

Other suggestions were outlined as follows:

"A filter house should be constructed so that in case a filter does overflow or there is a spill of any kind, the liquid cannot in any way reach the lower floor. This can be easily accomplished by having a solid concrete floor, so tapered as to allow any liquid to easily drain through sewerage drain conveniently placed in a straight line in the center of the floor; and having the entrance to the second floor reached from stairs built on the outside of the building. It is also advisable to have the filters resting on steel supports instead of the brick walls, which are part of the building. This will enable you to have either windows or curtains that would easily blow out in case of an explosion and thereby release the pressure without doing any particular damage to the filters and buildings.

"To avoid loss of time, which was experienced by the different fire departments in being unable to get their pumps close enough to the waters of Oil Creek so as to make a connection, it is advisable to install water plugs at convenient places handy to any stream or body of water, and have a water line from these plugs to the stream or other body of water. These plugs should be painted bright red, so as to be easily noticed.

"A bone burner building should be built on a right angle to the rear of a filter house so that there would be less danger of fumes from the filter house reaching the furnace in the bone burner building.

"Suitable underground sewerage with drains conveniently placed throughout the plant, and said sewer emptying into an underground concrete tank, located in that part of the plant where the least fire hazard exists, will save oil."

SPECIFICATIONS AVAILABLE

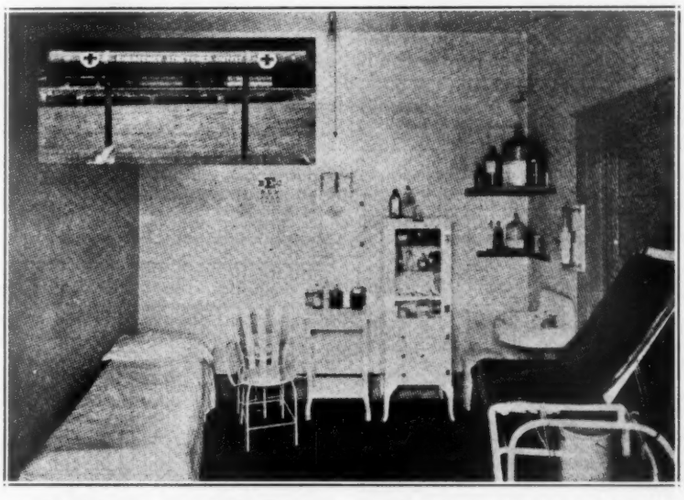
The Bureau of Mines has made available, copies of the revised specifications on U. S. Motor gasoline and have outlined the specifications for the new Motor Fuel V in a supplement to their bulletin 323B. The bulletin and supplement may be secured from the department of federal documents at Washington, D. C., for 15 cents.

PURE COMPANY PERFECTS FIRST AID ORGANIZATION AT REFINERY

The Pure Oil Co.'s refinery at Muskogee, Okla., has established an enviable record in safety work and W. F. Kruse, safety director and fire marshal, has outlined some of the details of the work which might be applied in other plants.

Credit has been given to G. A. McBride, superintendent, for having first organized the plant men in a definite program of safety work. This occurred 11 years ago and they now point to their system as being a well tried and nearly perfected one.

A plant safety committee, made up of the foremen from the various departments, meets every Saturday morning at 11 o'clock to take up and pass on safety recommendations. Every foreman is at liberty to discuss any other department and this is done in a constructive manner.



First aid room at the Pure Oil Co.'s refinery in Muskogee, Okla. In the insert is shown one of the first aid stretchers which have been placed at advantageous points on the refinery grounds.

As a check on the effectiveness of the work of the committee, a monthly safety contest is held among all departments of the plant. The department showing the greatest number of man-hours without an accident receives a trophy at the end of the month and any department winning this trophy three times is given it to hold permanently.

The responsibility for accidents is not placed on the workmen involved, but upon the foreman of the department. Thus the responsibility is centralized and, in turn, the foreman is in a position to correct the condition and warn any newcomers on the job.

Weekly Inspection

A weekly inspection of the plant is made by a committee of employes, a different group reporting each week. A written report is made regarding conditions in the various departments and recommendations are made in writing regarding the possible further improvement of conditions. The next committee reinspects the plant and reports on how many and how well the recommendations of the first committee have been carried out. This plan has worked out well because the men have entered into it with a cooperative spirit.

First aid instructions have been issued to all employes, first with the thought of best handling an emergency and then of aiding in preventing accidents. A year ago the company invited the United States Bureau of Mines safety car to the plant and it remained there long enough to give every employe complete first aid instructions. Each received a certificate from the bureau at the time. Then the company went further, and first aid instructions were given to more than 50 of the wives and daughters of plant employes. The benefits of this work have already been apparent several times.

Benefits Derived

Examples of the benefits of this work are told briefly, in that a child, badly cut while playing at home, was kept from possibly bleeding to death by the application of a tourniquet by one of the wives who received the bureau's instructions. In another case, artificial respiration administered by two refinery employes saved the life of a girl nearly drowned.

Safety first is taught to the new employes through a team of six picked men. This team gives exhibitions to classes and has been called upon at several times to give these exhibitions before other departments of the company.

A model first aid room is maintained at the plant. It is equipped to handle every emergency in first aid treatment. In addition, first aid stretchers have been placed at advantageous points on the refinery grounds. A picture of the first aid room and one of these stretchers is shown here.

HYDROGEN NOW THOUGHT TO EXIST IN TWO FORMS

Some new thoughts were undoubtedly opened in the problem of the hydrogenation of oil when the statement was made by Dr. K. F. Bohnhoeffer before the American Chemical Society recently that hydrogen existed in two molecular forms. He named these forms parahydrogen and orthohydrogen.

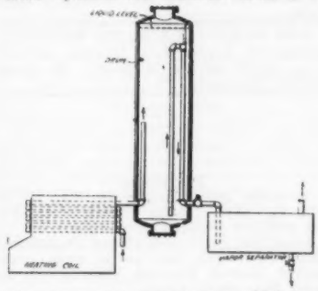
The parahydrogen was prepared by first passing ordinary hydrogen gas through charcoal at a temperature of liquefied air. This hydrogen was then passed over an electric heating element. The resistance in the wire heating element was changed as evidenced by intensity of a light in the circuit. Some of this hydrogen was then converted back to the normal or ortho state, and there was an immediate change in the intensity of the light as the gas was passed over the heating element, showing the normal hydrogen exerted a different influence on the electrical resistance in the wire.

While this difference was noted in the physical action of the two hydrogens, Doctor Bohnhoeffer said he had noticed no difference in their chemical activity. The connection this phenomena will have with the practical application of the problem of hydrogenation is obscure, but is of interest and adds greatly to the general knowledge of hydrogen.

Recent Patents

1,725,434. Method and Apparatus for Converting Hydrocarbons. Louis J. Walsh, Belmont, Mass., assignor to Standard Oil Development Co., a corporation of Delaware. Filed November 28, 1923. Serial No. 677,364. 9 Claims. (Cl. 196—58.)

6. In a method of withdrawing converted hydrocarbon material from a re-



action drum, the improvement which comprises settling tarry material during the conversion, withdrawing such material from near the bottom of the drum, withdrawing vapors from near the top of the drum, combining the withdrawn tarry material and vapors into a single stream, and reducing pressure on the withdrawn stream.

LIQUEFY PORTION OF GASES

1,727,303. Preparing Hydrocarbon Products. Frank A. Howard, Elizabeth, N. J., assignor to Standard Oil Development Co., a corporation of Delaware. Filed April 25, 1924. Serial No. 708,926. 3 Claims. (Cl. 196—11.)

1. The improvement in the art of preparing hydrocarbon products from hydrocarbons principally in the vapor phase, separated from hydrocarbon gas by absorption which comprises condensing out a fraction having a relatively low vapor tension, cooling said fraction out of contact with the uncondensed vapors and gases, compressing the said uncondensed vapors and gases and subjecting them to a rectifying action to obtain a liquefied product of relatively high vapor tension, and finally mixing said liquefied product with the aforesaid fraction having a relatively low vapor tension.

REGENERATE ALKALI BEDS

1,728,156. Regeneration of Alkaline Purifying Beds. Raymond C. Wheeler and Paul W. Prutzman, Los Angeles, Calif. Filed June 24, 1927. Serial No. 201,258. 2 Claims. (Cl 196—36.)

1. The method of maintaining the effectiveness of packs of solid sodium hydrate used for the treatment of petroleum vapors which consists in passing through the pack in admixture with the oil vapors a quantity of steam sufficient only to disengage reaction products formed on the constituent particles of such pack, and continuously draining from said pack the products so disengaged.

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PETROLEUM TECHNOLOGIST NOW OPERATING RESEARCH REFINERY WANTS ASSOCIATE WITH OR WITHOUT SERVICES. TO INVEST $20,000 FOR EQUIPMENT AND CRUDE STOCKS TO MANUFACTURE LOW COLD TEST BRIGHT STOCKS. MARKET ASSURED FOR ENTIRE PLANT OUTPUT. Box D-131, The Oil and Gas Journal, Tulsa, Oklahoma.

FOR SALE—Or partner wanted. Patent of first visible gasoline pump. All others are infringments. Write for information. Lee Wilson, Olvey, Ill.

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WANTED: SOME PRODUCING royalties in Texas, Oklahoma, or Kansas. Box 1093, Enid, Okla.

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No Real Change in Prices at Chicago

Gasoline Market Has Uncertain Tone and Occasional Soft Spots. Considerable Business in Furnace Oils

By J. B. Waldo

CHICAGO, Sept. 16. — The gasoline market continued today in about the same position as at the close of last week. There was no real change in prices for gasoline, the major refiners continuing to quote 7¾ cents for spot business and doing little at that price, while the other sellers very generally quoted 7¼ cents for U. S. Motor gasoline, this price to meet the views of most spot buyers, but those sellers who tried to sell at a higher price found it difficult and often had to reduce their quotations to 7¼ cents to secure order. Jobbers have been having a fair gallonage for the season, but some sections near this city had a 24-hour rain, which reduced their sales. The gasoline market had an uncertain tone during the day and occasional soft spots.

Kerosene was quiet and easy in tone, good material being offered to resellers at 5 cents.

Burning Oils Active

Either the cooler weather or the reports made to distributors of the conditions in the fuel and furnace oil markets resulted in considerable business being done in these and many orders against contracts. The market for all material suitable for use as furnace fuel is very strong with a great scarcity of materials. Industrial fuel oil with a gravity of over 16 degrees is also very firm and supplies hard to buy. There were almost no offers of these oils and refiners state in answer to inquiries that they have no material to sell at present. The purchasing agent for one of the large utility companies covering a large part of the country east of the Mississippi River has stated that the variation in the prices and specifications quoted his company are so great that it seems the refiners do not want to sell gas or fuel oil. There was a wide inquiry for 24-28 zero fuel oil with a low flash, but very little was in storage and that was being held against previous contracts, and the same conditions are found in most if not all zero oils. This territory is, perhaps, in worse shape than others, owing to the withdrawal of large sources of supply which have always in the past been available for large quantities of both furnace and industrial fuel oils.

Gasoline Marking Time

The Chicago gasoline market last week marked time. The trade resembled a crowd waiting on the street for a procession to pass. Many believe that a crude cut is imminent and that it will be followed by a tank wagon reduction and a general readjustment of prices. They believe that nothing but such a readjustment can lift the market out of the sluggish condition into which it has drifted since the middle of August. When practically every buyer is expecting what he considers a seasonable decline, it is hard to get business. Jobbers and some of the largest integrated companies are reducing their stocks to a low level.

The consumption of gasoline over the territory has been seasonable although in many sections temperature below normal has reduced the gallonage. September bids fair to be an average month in gasoline distribution and to show a gain over the same month in 1928. August in this vicinity did not show as good a gain as July but this is attributed to the results of the gasoline tax enforcement in Illinois. This tax was put into effect on August 1 and stimulated consumer buying during the last day or two in July. On the other hand, the first day or two in August were almost without business at the stations while the first week in that month was poor, from the point of gasoline sales.

Spot Buying Limited

The spot buying was limited and while the contract orders were fair for the week, they were on the September scale, not that of July. The numerous changes in ownership of prominent jobbing concerns has unsettled the list of contracts of refiners and in some cases there is delay in renewing contracts or of obtaining new ones to take the place of those that have been changed to other refiners, either as the result of new ownerships or simply because of the desire of the buyer to make new and what he considers more advantageous connections. The various inducements that are offered to make these changes are in most cases a secret between the buyer and the seller but these inducements of late have been less liberal than in past years. Apparently methods have changed. Instead of "buying business" by making marginal contracts over a term of years with margins of 6 and 7 cents below the local tank wagon price, or advancing cash to enable the jobber to put in additional stations or even to pay up old bills, all of which has been done frequently, the business is bought outright and the buyer receives the profit on the subsequent conduct of the business.

The price situation in this market showed little change. The major refiners continued to ask 7¾ cents for spot gasoline and few if any did enough business to talk about. There are some refiners who do not make marginal contracts but enter into what is commonly termed a franchise agreement, so that as they make no contracts all of their shipments are supposedly on spot orders but those who do make contracts reported their spot business had dropped almost to the vanishing point. Other sellers were selling U. S. Motor gasoline at a range of from 7 to 7½ cents. Resellers were able to buy early in the week out of Oklahoma at 7¼ cents with a few cars available at a little less and out of West Texas at 6¾ cents.

Competing With West Texas

Later in the week the prices of the Oklahoma refiners had been shaded as some of them were anxious for business and they were competing with the West Texas gasoline, naming prices for U. S. Motor gasoline as low as 6⅞ cents for immediate business. Resellers in some cases asked 7½ cents or 7⅜ cents but generally their quotation was 7¼ cents, which price seemed to fit in with the jobber's ideas of the price he should pay for good sweet gasoline. The other gravities than U. S. Motor were quiet, although it is possible that a larger demand may be developed for the 60-62 400 endpoint in the near future by the integrated companies in supplying this grade as their regular station gasoline instead of the 58-60 437 or U. S. Motor gasoline. Some have made this substitution and report that it has worked to their satisfaction as it has given their customers better service.

The importance of running only what is truly "sweet" gasoline is increased by the cooler weather when the closed cars are less thoroughly ventilated than in the summer. The shipment of sour gasoline will give a refiner's reputation a black eye with the trade. Last month a refiner in some way permitted several cars of sour gasoline to be delivered to his customers. He may have purchased the gasoline from some other refiner and delivered it without testing. Practically every one of the 50-odd cars was rejected. A score were on the tracks at one time. They were resold and reshipped and finally disposed of, but that one error on the part of the refiner has resulted in making his product taboo with many jobbers.

Sour Gasoline Cost Customers

Scores of jobbers have registered their complaints and they each state that the handling of this sour gasoline by them has cost them many customers. At their state meetings and in the daily contact with other jobbers these dealers who have had this trouble talk about it and tell just where the gasoline came from and what it did, in their opinion, to their business. Refiners who know that their gasoline is O.K. in every quality, that it is shipped in clean cars on the right date, build up a reputation for their product and their way of handling business that is worth real money to them.

Kerosene was quiet, not to say dull, last week, and the stronger market that was expected to come with cooler weather has not developed yet. Prices at the close of the week were fractionally lower. The fall plowing has been expected to bring an increase in the kerosene demand but jobbers say many tractors owners prefer to us gasoline during the cooler weather.

The situation in all kinds of oils used for heating was intensified during last week. Several of the large dealers and an occasional consumer have said, "If you do not think the situation is tight, try to buy, and if you can buy, get it shipped." The failure of several West Texas refiners to deliver on their contracts was quite a blow to those who had sold in advance and were depending on these deliveries to cover their sales. Then the announcement of the Shell refineries that they were out of the market for heavy fuel oils and later for all grades up to distillates added to the woe of the situation, for these sellers.

Rush to Cover

Then began what has been described by one refiner here as a rush to cover. Now those who were able to buy when they first found out what conditions would be say that they cannot get shipments, either refiners having sold what they did not have or holding back on delivering their low-priced orders while shipping on those which paid them better money. In local plants the refiners are shipping on orders just as nearly as they can according to the dates named in the orders, but being heavily oversold they cannot meet the schedule in every instance. They do deny that they are delaying their earlier orders in favor of later business at a higher price to them. The local situation will determine when and if the Shell people come back into the market with supplies of fuel and furnace oil. In the meantime all grades are sparingly offered and hard to buy.

What is being discussed here by dealers in fuel and furnace oil is the stocks of fuel and gas oil reported by the Bureau of Mines. The report for July shows a large increase in these stocks during the month when the refiners were operating their cracking plants activeiy. Stocks at the end of July as reported by the Bureau were nearly 5,000,000 bbls. larger than at the end of June and nearly 13,000,000 bbls. larger than at the close of July, 1928. If these reports are correct, and they are believed to be close to the exact figure, then there is a lot more fuel and gas oil in storage somewhere than there was a month or a year back. The supply has evidently been in excess of the demand so that the extent of the demand need not be considered. The natural conclusion to the argument is that these stocks are in excess of the demand and will have to be released at some time and when they are released, a better supply and an easier market will result.

Light Gravities May Disappear

Some say that a result of the larger use of the cracking plants will be complete disappearance of the lighter gravities, the product of the cracking stills being a heavy residual oil of 14 gravity or heavier. One refiner states that the trade might as well forget the former 24-26 and even the 18-22 gravities, as the industrial fuel of the future will be as heavy as a 12-14 gravity and any lighter oils will be secured by blending these heavy residual oils with distillate or some similar light product.

One refiner stated here last week that his plant had 25,000 bbls. of this heavy residual oil which it would blend with distillate to a 26-30 or 28-30 gravity fuel oil. He said that right now the refinery did not have the distillate to spare. Last winter one of the local refineries was short of distillate on this account. The Sinclair Refining Co. runs as a rule a heavy residual oil which it blends with distillate to make a fine 28-30 blended oil. At least 75 per cent of the total stock of gas and fuel oil reported for August 31 by the American Petroleum Institute was in California. The next largest stock was in Texas and the third on the East Coast. The combined stocks of Oklahoma, Kansas, Missouri, Illinois, Indiana and Kentucky were less in volume on that date than the accumulations of fuel and gas oil on the East Coast, and only two-thirds as large as the stocks in Texas alone. So the common charge made that the Mid-Continent refiners are holding their stocks of gas and fuel oil for higher prices and that these stocks are large, is not proven by the reports of reliable authorities.

Demand for Fuel Oils Increased

The plan adopted by many of the largest refiners because it pays them best, which is to reduce their crude runs and crack their fuel oils, seems to be at odds with their recent efforts to build up the domestic and industrial oil burner industry. The demand for fuel oils of all kinds has been greatly increased by the introduction of the domestic oil burner. Now comes a condition in the refining of petroleum which seems to threaten the supply of suitable fuels for these burners. The question has been asked both by burner manufacturers and distributors of fuel oil and the reply is simple. It is simply a matter of costs and selling price. It would be possible for the refiner to reduce his gasoline output, to discontinue the use of his cracking units and to run much more distilltae, gas and light fuel oil. But to decide on such a course of action it must pay the refiner to do so. Refiners have advanced their prices during the week. On the fifteenth the Chicago distributors of furnace oil advanced their price to consumers one-half cent a gallon. They anticipate some objections from their customers. It should be easy to satisfy these customers who made little or no objection when the gasoline price was advanced last spring or again on August 1 when the state tax went into effect.

Distillates and Zero Gas Oils Active

The demand for distillates and for zero gas oil was active last week and prices were strong. The low of the market for any kind of good distillate irrespective of gravity was 3¾ cents and the tendency was towards a flat 4-cent price which was quoted to the trade by many sellers. Zero gas oil was just about unobtainable, either dark or straw color. Some straw gas oil, not zero, was offered at 3¼ cents. There were limited quantities of real 32-36 gas oil to be had, many refiners running 30-34 in preference.

Gas oil still owing to buyers by refiners is reported to be slow of delivery. Offerings did not increase for either distillates or gas oil with the advance in price. Right now the season is about to

(Continued on Page 157)

Tone of Eastern Market Is Stronger

Tank Wagon Gasoline Still Easy, but Doing Better at Wholesale. Kerosene Has Stiffened and Lubs Are Fairly Steady

By A. E. Mockler
New York Bureau, The Oil and Gas Journal

NEW YORK, Sept. 16.—The general tenor of refined products markets in the East Coast area is a little better this week so far as refinery markets are concerned. Gasoline is still quite easy in tank wagon markets, but is doing somewhat better at wholesale at refineries. Kerosene has stiffened appreciably, lubs are fairly steady, and paraffin wax quotations are fractionally higher.

Endorsement of the code of ethics by most of the leading market interests in the East has occupied the attention of the trade this week, and already it has had a noticeable effect on the market situation here. While it is evident that some price cutting is still being done, notably on gasoline, interests which have previously been only too willing to "meet competition" wherever and whenever it has developed, are now proceeding with moderation in planning their wholesale marketing operations.

While it is generally felt that it is much too early for the provisions of the industry's code of ethics to revolutionize marketing practices in the East, it is evident that endorsement of the code by most trade interests has made a profound impression in many quarters and that the invoking of the code's provisions will have an important bearing on developments in the Atlantic States during the next few months.

Tank Car Gasoline

With few exceptions, the tank car market for U. S. Motor gasoline is well maintained at 9 cents per gallon, f. o. b. refineries. Smaller interests, and one or two large factors, are reported to be shading by a quarter to a half cent per gallon, but this competition has not reached the point where the leading interests feel compelled to meet it. In fact the East Coast market, if anything, is a shade firmer than was the case during the preceding week.

While business during the first week of the current month was exceptionally heavy, there has been a slight easing off in the demand in the jobbing market during the week just ended. Distributors in a few instances had carried over some stocks from the previous week, while in other cases the distributors were showing a tendency to get their operations back to a hand-to-mouth basis, which is a normal seasonal development at this time of the year.

Notwithstanding the slight easing off in demand which is a matter of course at this season, current sales of refiners are still running into gratifying totals, and there seems little reason to doubt that gallonage of the leading interests in the East will show pronounced gains in 1929.

The California situation is still being watched with interest, but reports of price cutting on the Pacific Coast product in East Coast markets are less frequent. The California interests, it appears, have already developed a substantial outlet here. Reports of cutting on California U. S. Motor for shipment into Ohio, Indiana, and contiguous territories are heard, but these rumors are largely discounted in well posted trade circles. It appears that one or two sellers have been carrying some long-term contracts for delivery of California gasoline into these territories, but it does not appear at the moment that California interests were actively soliciting new contacts in the territories normally served by Group 3 refiners.

Tank Wagon Gasoline

Price readjustments have been made in East Coast tank wagon markets in the past week, bringing the market in line with recent changes in refinery prices. It does not appear, however, that the tank wagon situation is wholly stabilized yet, and further changes are looked for.

Standard Oil Co. of New York as of September 11 reduced tank wagon and service station gsoline prices 1 cent per gallon in Westchester, Long Island and Staten Island, with these reductions immediately met by The Texas Company, Beacon, Shell Eastern, Sinclair, and others. The reduction makes the market at these points 17 cents tank wagon and 19 cents service station, both inclusive of the 2 cents State tax.

Thus far, New England and the South Atlantic States have not reflected the recent declines in the wholesale markets, but it is expected that downward readjustments in these territories will be made in the near future.

Kerosene

Demand for kerosene has broadened appreciably during the week, and the market is in a more favorable position. Leading interests are quoting 8 cents per gallon, and the number of sellers booking business under this figure has decreased materially. Some water white can still be had in tank car lots at 7¾ cents per gallon, but the 7½ cents stuff appears to have cleaned up, and most sellers are quoting 7⅞ to 8 cents per gallon.

Jobbing demand for kerosene has shown a heavy increase during the week, and tank car movement is active. Current holdings of water white at East Coast refineries are not heavy, and it is by no means improbable that the market may witness a quarter or a half cent advance in refinery prices during the next several weeks.

Tank wagon sales of kerosene are also showing material expansion, and the market is firmly maintained. Cooler weather during the past several days has stimulated consumption in local territory, while sales in New England have picked up sharply. It is expected that kerosene will be largely used for home heating during the fall season, and leading marketers are featuring the advantages of this fuel for taking the chill off the air between seasons.

Fuel Oil

Improved demand for bunker "C" has developed this week, and the market is firm at $1.05 per bbl., in bulk, f. o. b. refinery terminals in the East Coast area. Marine interests are in the market in a larger way, and domestic industrial consumption is also on the increase, with further gains in the latter field looked for as the season develops.

Sentiment in the eastern trade is about evenly divided on the question of a price advance on bunker oil. Some interests in the industry hold to the belief that the close of the year will see a $1.15 or $1.25 per barrel market on bunker "C" here, while others do not expect any change from the established basis. Charter rates are still high, and the cost of moving Venezuelan and West Texas crude to Atlantic seaboard refineries is still higher than was the case at the beginning of the year.

The future of the bunker oil price here is dependent on both the ocean freight market and the probable trend of domestic crude production and prices. Some interests here are looking for an early cut in West Texas crude, which would offset the higher tanker market. South American crude quotations, it is felt, would move in sympathy with West Texas. However, it is possible that any drastic cut in domestic crude output would forestall the naming of a lower basis in the fields.

The California situation is still being watched with interest. Pacific Coast refiners are large holders of bunker oil, but at the prevailing market here and the high rate for moving this oil eastward, no competition from California at prevailing price levels is looked for. However, on a $1.25 market it is possible that shipments of California fuel oil might be attracted eastward.

Gas Oil

Cooler weather has stimulated demand for gas oil, and the market is in stronger position. Leading refiners continue to quote recycled stock at 5¼ cents per gallon, with other interests still offering this grade down to 4¾ cents. There has been a marked improvement in the demand from artificial gas companies here, and consumption in this quarter is expected to improve progressively as the season of cooler weather develops.

Holdings of gas oils at East Coast refinery terminals are not large, and the trade is looking for a firming-up in the outside market to around 4⅞ to 5 cents per gallon. It is understood that there is already inquiry for low grade gas oil for delivery over the winter season against furnace oil contracts.

Lubs

Routine movement in cylinder stocks is reported this week, but the market has been showing a fairly steady undertone. Current offerings for refinery shipment are not large, and refiners are showing rather firm views, particularly on bright stocks, which are in short supply. Domestic blenders and compounders have been in the market in limited fashion this week, buying a carload here and there as actually required for current operations. Export inquiry has picked up slightly, but foreign buyers' price views are still under those of refiners in this area, and the volume of actual business booked for shipment abroad has continued relatively light. Little interest is shown in forward busines, although some domestic buyers are endeavoring to contract for October shipment at about 1 cent per gallon below current price levels.

Industrial demand for red and pale oils has picked up and the market is fairly strong. Carlot movement from East Coast refineries has shown a slight gain, with the textile industry drawing stocks in a larger way. Export business in these oils is also fair, with prices holding steady.

Petrolatum

Domestic buyers have been in the market for white grades of petrolatum in better volume this week, and the market is steady, quotations holding unchanged from the previous week's level. Pharmaceutical manufacturers are ordering forward stocks against standing contracts, with every evidence of continued heavy business from this quarter. Foreign buying of the white grades for use in pharmaceutical compounding is also beginning to show expansion, as the season of heaviest consumption draws near.

Amber grades and dark green have met with more inquiry, notably in the export market, and prices are showing a steady undertone. Refiners' stocks of petrolatum are not heavy, and sellers in most instances are booking only for prompt and nearby shipment, being unwilling to make commitments over the closing quarter of the year at current price levels. Refiners in some instances are discussing the possibility of a price advance before the close of the year, with most of the strength apparently centering on snow white and lily white, although the amber grades are also firm.

Paraffin Wax

Better buying of fully refined grades of paraffin wax has been evidenced this week, and the market is in stronger position on all grades, with prices averaging an eighth-cent per pound up from the preceding week. Spot 120-122 a.m.p. is held at 4 cents per pound with 125-127 a.m.p. at 4½ cents, 130-132 a.m.p. at 5½ cents, 133-135 a.m.p. at 6⅛ cents, and 135-137 a.m.p. at 6¼ cents per pound.

Refiners' stocks of both crude scale and fully refined grades are rather heavy at this time, but notwithstanding the unfavorable statistical position of the market, values have firmed up. It is reported locally that there has been a good deal of speculative buying at the low prices recently in effect, and this buying has influenced refiners to strengthen up their price views. Domestic consumption is on the increase and export buyers, who had been out of the market for several weeks past, have again come in for supplies.

Diesel Oil

Leading interests here continue to maintain the market firm at $2 per bbl., in bulk, f.o.b. refinery terminals, with a good movement recorded at that figure. Marine interests are drawing stocks in a large way on standing contracts, and in addition the movement into consumption in this quarter on spot has run into large totals during the week.

With the tonnage of Diesel powered ocean vessels steadily gaining and domestic industrial consumption also on the increase, refiners in the East are viewing the outlook in the Diesel oil market with considerable confidence. This oil, for the past year or more, has displayed more stability than any of the other principal refined products, and the trade here looks for it to continue one of the steadiest items in the list. Developments with respect to Diesel-burning aviation motors are being watched.

Export Markets

Continued quiet in export gasoline markets is reported this week, with the price basis unchanged at the Gulf. A cargo of California motor gasoline was reported sold for shipment abroad this week, but inquiry discloses that the cargo in question was sold for shipment to the East Coast at 8½ cents per gallon, delivered. No cargo inquiries for export gasoline are reported in the Gulf market at the moment.

Kerosene has likewise remained quiet in export channels so far as cargo lots are concerned. However, there is an active call for both prime white and water white in small lots for shipment abroad, with buyers in many instances stocking in a large way in anticipation of an early firming up in the price basis. Cased kerosene is also moving into export channels in good volume, and at firm prices.

Foreign buying of lub oils is still rather light, and while there are more inquiries in the market, most of them are at prices under prevailing levels, and are lower than refiners' price views.

Paraffin wax has met with better inquiry in export markets, and prices have firmed up.

Fuel, gas and Diesel oils are all quiet insofar as foreign buying is concerned.

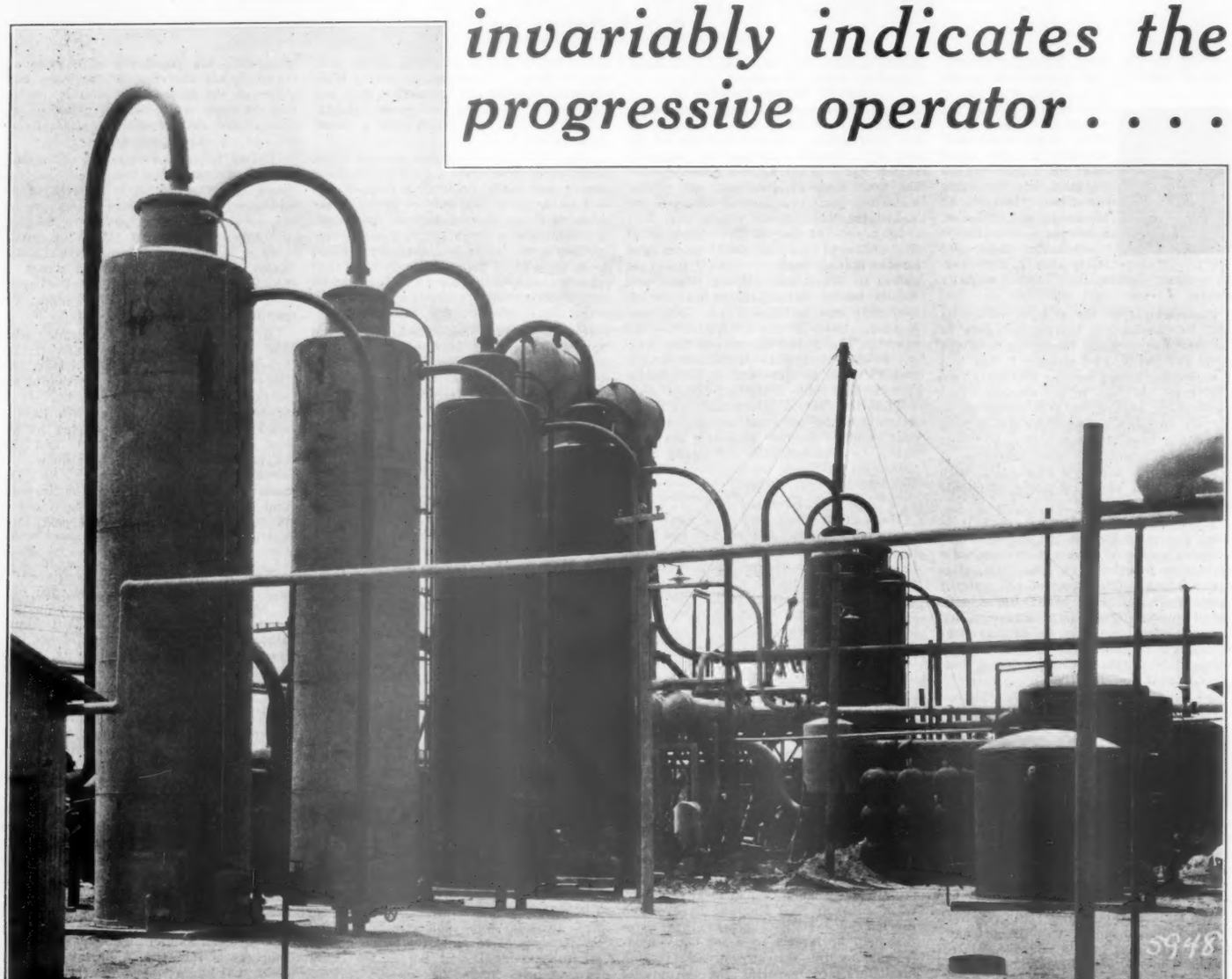
Petroleum Exports

The following table shows principal exports of refined petroleum products

(Continued on Page 157)

ERECO EQUIPMENT

invariably indicates the progressive operator . . . .



Ereco automotive absorption units at the Celetexo Plant, Lefors, Texas. This plant is being doubled in size and when complete will handle approximately fifty million feet of gas.

ERECO
DUPLEX

ENGINEERING, RESEARCH & EQUIPMENT CO.

Consulting, Research, Design Manufacturing, Construction.
Absorption Plant And Refinery Equipment

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DALLAS
Athletic Club Bldg.
Phone 2-6841

Natural Gasoline Manufacture

Explain By-Product Field in Petroleum And Gas Industries

In a bulletin recently issued by Arthur D. Little, Inc., that company's views are given regarding the possibilities of the future development of chemicals and other by-products from petroleum in competition with other sources. Considerable has been written regarding the possibilities but the Little company in the following discussion is more concerned with the commercial side than the strictly scientific. The bulletin says:

"We need first to consider that synthetic products must nearly always compete with similar or identical substances of natural origin. In spite of the triumphs of chemistry in the synthesis of solvents, dyestuffs and medicinals, we must admit that the outstanding products of plant and animal life—the fats, proteins, sugars, starches and celluloses—have not yet been produced synthetically, save occasionally by purely laboratory methods. Products may indeed be synthesized from petroleum hydrocarbons that compete with natural alcohols, fatty acids or glycerin, yet the natural substances are also readily obtained from starches, sugars and fats by chemical means or by the action of microorganisms. Synthetic products from coal, on the other hand, are derived from the aromatic group of hydrocarbons, which are but minor products of plants and animals.

"The synthesis of chemical products from coal has another important advantage in being chiefly based on but four substances (benzene, toluene, naphthalene and anthracene), though three others (xylol, phenol and cresol) are of considerable importance. All of these can be easily separated from tar and from each other. The number of petroleum hydrocarbons, on the contrary, is very large. Their mixtures are so complex that it is almost impossible to separate out any component in a pure form if its boiling point happens to be above 100 degrees Fahrenheit. Anthracene, the most difficult of commercial coal tar hydrocarbons to purify, is actually more easily purified than any of the petroleum hydrocarbons that are liquid above 100 degrees Fahrenheit. This is a serious handicap for petroleum as a raw material, since chemical products produced from mixed or incompletely purified raw materials are always more complex than the raw materials themselves.

Petroleum Has Possibilities

"By noting the difficulties of developing a synthetic industry from petroleum, we are anxious not to give the impression that such a development is hopeless. Processes are known for obtaining alcohols from the lightest petroleum fractions which compete with fermentation alcohol for all uses except the use as a beverage. The pentane fraction of low boiling liquid petroleum hydrocarbons (boiling range about 90-100 degrees Fahrenheit) is being used on a commercial scale at present to produce solvents for the lacquer industry in competition with the butyl alcohol and fusel oil of fermentation. The corresponding butylene and amylene fractions of cracked petroleum gases have been converted to alcohols, also competing with fermentation butyl alcohol and fusel oil. This process is not being operated on a commercial scale at present, although its technical value has been fully demonstrated.

"Propylene, one of the chief gaseous products obtained in cracking petroleum, has been converted to isopropyl alcohol, and there are a number of plants for this process. Isopropyl alcohol competes as a solvent with fermentation ethyl alcohol, and has the advantage that it is useless for beverage purposes, and therefore pays no tax and requires no denaturing for industrial use. It may be easily oxidized to acetone, which competes with acetone produced by fermentation.

"Another important component of the mixture of gases produced in the cracking of petroleum is ethylene. This can be converted into ethyl alcohol or ether. By another process, ethylene may be converted into glycol, which itself competes with glycerin, and whose chemical derivatives are lacquer solvents, competing with the esters of fermentation butyl alcohol and fusel oil. The glycol industry is today well established on a commercial scale.

Poss'ble Production

"The potential magnitude of these synthetic industries based on petroleum may be indicated by the production and value of the materials with which they compete. In 1928, 48,000,000 pounds of fermentation butyl alcohol were produced, valued at $9,000,000. There is sufficient butylene, amylene and pentane in petroleum gases to replace this with synthetic products. The demand for acetone is estimated at 65,000,000 pounds a year. Fermentation ethyl alcohol produced in the United States in 1928 was 99,607,000 gallons, worth $47,800,000. Glycerin from fats in 1925 was 47,000 tons, valued at $16,991,000. There is sufficient ethylene and propylene in refinery gases to replace a large portion of these by similar or identical synthetic ones. These figures show plainly the enormous potential values of synthetic products from petroleum.

"The synthetic industry based on petroleum must not be considered as a means for utilizing by-products or as a mere side-issue in petroleum refining. It must stand on its own merits, as the dyestuff industry does. The production of synthetic organic chemicals from petroleum commands vast supplies of raw materials and possesses ample markets for its products. The synthetic processes themselves present many difficulties, to be sure, yet there are a few which are at present both technically and economically successful. Others produce satisfactory products at so high a cost that their future depends on the ability of chemical engineers to lower those costs. Others still are in the laboratory stage, and no conclusions can be drawn concerning their economic possibilities."

NEW EARLSBORO PLANT

The Skelly Oil Co. is building a 20,000-gallon absorption gasoline plant in the Earlsboro district of the Seminole Field. The location of the plant is Section 17-9-6. Construction is expected to be completed by November 1 and when this plant is operating at capacity the company will be producing approximately 85,000 gallons daily in the Seminole area.

SINCLAIR STARTS PLANT

The Sinclair Oil & Gas Co. has started the operation of their new gasoline plant in the Oklahoma City area described as the S half NE. Section 30 11-2w. Gas from the company's "gasoline" well will be processed through the plant and when production restrictions are released on the field in general, other leases and wells will be connected with the plant.

Increasing Number Of Companies Enter Texas With Plants

FORT WORTH, Tex., Sept. 14.—In connection with the rapid expansion in natural gasoline production in North, Central and West Texas there has been a number of new companies which have erected plants in the past few months. The bulk of the production is now sold to refineries within a short radius of the plants or to Gulf Coast refineries. The major refiners in the Gulf Coast regions are the largest buyers of natural gasoline.

A recent check of the Panhandle area showed the following companies operating one or more plants in the fields of that area: Carson County—Phillips Petroleum Co., Shell Petroleum Corp., Skelly Oil Co., and Magnolia Petroleum Co.; Gray County—Atlantic Oil Producing Co., Col-Tex Gasoline Co., Empire Oil & Refining Co., Forrest E. Gilmore Co., Magnolia Petroleum Co., Phillips Petroleum Co., Shell Petroleum Corp., Wilcox-Pampa Oil Co., and the Skelly Oil Co.; Potter County—Cannon Gasoline Co.; Moore County—Canadian River Gas Co., and Skelly Oil Co.; Hutchinson County—Cockrell & McIlroy Oil Co., Dixon Creek Oil Co., Empire Oil & Refining Co., Natural Gasoline Co., Pacific-American Gasoline Co., Phillips Petroleum Co., Ralph-Baker Corp., Louis J. Root, Inc., Skelly Oil Co., and Sabri Gasoline Co., Wheeler County—Airline Gasoline Co., Columbian Gasoline Corp., Magnolia Petroleum Co., and National Supply Co.

In the West Texas area the following companies are reported operating: Reagan County—Big Lake Oil Co., and Signal Gasoline Co.; Howard County—Magnolia Petroleum Co.; Crane County—Phillips Petroleum Co.

In the North and Central Texas fields the following companies are operating: Eastland County—Adams Gasoline Co., Arab Gasoline Co., Chestnut & Smith Corp., Consolidated Gas Co., Gulf Production Co., Hirt & McDermott, Inc., Humble Oil & Refining Co., Lone Star Gas Co., Magnolia Petroleum Co., Mid-Kansas Oil & Gas Co., McMan Oil & Gas Co., Orifice Gasoline Co., Phillips Petroleum Co., and the Texas Pacific Coal & Oil Co.; Shackelford County—Phillips Petroleum Co., and Roeser & Pendleton; Brown County—Amerada Petroleum Corp., Humble Oil & Refining Co. and Shell Petroleum Corp.

Stephens County—Boudinot Gasoline Co., Breckenridge Gasoline Co., Brooks & Hanlon Gasoline Co., Gulf Production Co., Hanlon Gasoline Co., Humble Oil & Refining Co., Lone Star Gas Co., Magnolia Petroleum Co., Mid-Kansas Oil & Gas Co., Phillips Petroleum Co., Texas Pacific Coal & Oil Co., and Ward Gasoline Co.; Coleman County—Magnolia Petroleum Co., Pecos Gasoline Co., and Trinity Gasoline Co.; Palo Pinto County—Forrest E. Gilmore Co., and Lone Star Gas Co.; Jones County—Phillips Petroleum Co.

In Wichita County, the following companies are operating plants: Electra Field—Continental Oil Co., Gulf Production Co., Magnolia Petroleum Co., McMan Oil & Gas Co., and Western Gasoline Co.; Burkburnett Field—Continental Oil Co., Gulf Production Co., Magnolia Petroleum Co., McMan Oil & Gas Co., Prairie Oil & Gas Co., Skelly Oil Co., and The Texas Company; Iowa Park Field—Humble Oil & Refining Co.; Petrolia Field—Lone Star Gas Co.

Wilbarger County—Humble Oil & Refining Co.; Young County—Graham Gasoline Co., and Phillips Petroleum Co.; Archer County—Phillips Petroleum Co., and The Texas Company; Woodson Field—Humble Oil & Refining Co.

A PRACTICAL SUGGESTION

A BOILER SAFETY DEVICE

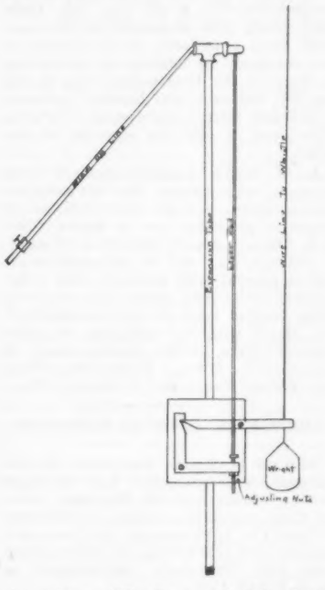
An inspection of the many old boilers will reveal but few that have not been burnt, having buckled crown sheets and the firebox in general covered with "blisters." Although this condition can be brought about by firing hard when bad scale forming water is used, still in most cases the boilers are burnt by allowing the water to get too low.

The device here is rather a signal to the fireman and issues a warning when the water level gets down to the middle gauge. Its operation depends upon the expansion of a tube, and in a way, is similar in its working principle to some types of boiler water regulators.

A one-half-inch pipe about four feet long is connected to the second or middle gauge on the boiler. It is set vertical and at its upper extremity carries a tee bull nosed. The tee carries a short bull plug on one side and a short line to which is attached a valve to afford means of periodically blowing and thereby prevent tube from corroding or scaling. A steel plate about 8 inches square is welded or attached by means of a "U" bolt to the tube. This plate carries a trigger arrangement which is shown in the sketch.

A one-fourth-inch rod is attached to the bull plug at one end and to the angled part of the trigger at the other. One nut on each side of the trigger arm provides a method of adjustment. The straight arm of the trigger carries a counterweight which is fastened to the boiler whistle by a wire.

The operation is evident. As long as water is above the second gauge the expanding tube will remain cool, but as soon as the water level drops below this



gauge, steam will arise in this tube, heat it up and cause it to expand. This lengthening of expansion tube will cause the trigger to trip and the whistle to blow. A brass expanding tube is preferable, although ordinary one-half-inch gas pipe gives good results.

Practical suggestions by those connected with the construction and operation of natural gasoline plants are invited. Payment will be made as soon as suggestions are accepted. Address all communications to the Natural Gasoline Department, The Oil and Gas Journal, Tulsa.

Brief Items for Petroleum Refiners

Announce Officers Following Paragon-Valvoline Purchase

NEW YORK, Sept. 16.—Formal announcement of acquisition of a controlling interest in Valvoline Oil Co. by the Paragon Refining Co. has been made here, together with a realignment of management in the latter company.

E. W. Edwards has been elected president of Valvoline Oil Co., succeeding W. D. Ellis, who becomes chairman of the board. Other officers elected include Howard W. Edwards, H. W. Nuckols, John M. Marshall and George D. White, vice presidents; C. C. Gould, who continues as secretary and assistant treasurer; C. J. Leroux, treasurer, and K. C. Wyckoff, assistant secretary. In addition to the foregoing changes, E. W. Edwards, Howard W. Edwards, William Cooper Proctor, John Omwake, Frederick A. Geier, W. W. Freeman, Charles Sawyer, George D. White and Howard I. Shepherd have been elected to the Valvoline board of directors.

Paragon Refining Co., it is understood, secured control of the Valvoline Oil Co. through the purchase of approximately 27,756 shares of common stock at $200 a share, or approximately $5,500,000. The capitalization of Valvoline consists of 86,250 shares of 8 per cent convertible preferred and 39,000 shares of common.

Minority holders in the Valvoline Oil Co. will be offered Paragon Refining Co. Class "B" common shares in exchange for their stock, on an exchange basis yet to be worked out. A refinancing plan, coincident to the change in control, is also being formulated.

In time, it is intimated, the operations of Paragon Refining Co. and Valvoline Oil Co. will be merged, the combined property to retain the Valvoline name after the physical consolidation has been effected.

The Valvoline Oil Co. manufactures and markets petroleum products with refineries at Edgewater, N. J., Warren and East Butler, Pa., and about 70 branch distributing offices located in the United States, with a number of agencies in England, France and Germany. The company also owns and operates the West Virginia Pipe Line Co. and the Refiners Gas Co.

Paragon Refining Co. produces and refines petroleum, having an 8,000-bbl. refinery at Cleveland. The company operates 350 bulk and filling stations in Ohio and Michigan, having recently taken over a chain of 35 stations in Cleveland from the Indian Oil Products Co. and a chain of 18 stations in Detroit from the Cadillac Petroleum Co.

TIDE WATER BUYS STATIONS

NEW YORK, Sept. 16.—The Tide Water Oil Co. has purchased the Essanarr group of 13 filling stations in Brooklyn, the Service Oil Co. operating 8 stations at Asbury Park, New Jersey, and the Royal Oil Co. operating 8 stations in Newark, N. J. The company now has between 400 and 500 directly-owned filling stations in the East. It recently acquired a number of filling stations in the Bradford, Pa., area and is building a bulk station to service that area.

ATLANTIC BUYS STATIONS

NEW YORK, Sept. 16.—The Atlantic Refining Co. has purchased the New Jersey distributing facilities of the Pacific Refining Co. comprising about 20 filling stations. The sale is effective October 1. The Tide Water Oil Co. has been supplying Pacific Refining stations in New Jersey hitherto.

NEW REFINERY TO BE BUILT AT CANTON, OHIO

The Allegheny-Arrow Oil Co., a new corporation resulting from the merger of the Allegheny Oil Co. of Canton, Ohio, and the Arrow Oil Co. of Wooster, Ohio, have announced the building of a 1,500-bbl. topping plant and cracking facilities near Canton. Crude will be supplied through the Texas-Empire pipe line and through the Illinois pipe line, a short line being built from Sparta to the plant. Construction of the plant will begin immediately, a contract having been given the Arthur G. McKee Co. for its design and construction. A Dubbs unit will also be built to crack the residuum. It is the plan of the company to make a low cold test pressure fuel and sell this locally. A pipe line will be laid direct from the plant to the industrial consumers, thus eliminating a freight charge.

The refinery will be located on a 21-acre tract on the Wheeling & Lake Erie Railroad. An expenditure in excess of $660,000 will be made in the construction of the plant, the company having been capitalized for $1,000,000.

The two original companies have been active in the marketing of petroleum products and through the merger, these facilities will be combined and will be supplied by the new plant. Approximately 7,000,000 gallons of gasoline are being marketed annually through these facilities.

Officers of the Allegheny-Arrow Oil Co. are, Ross K. Shoolroy, head of the Arrow company, president; W. M. Thompson, vice president of the Allegheny company, vice president; D. F. McIntosh, secretary of the Allegheny company, secretary; and J. C. McIntosh, treasurer of the Allegheny company, treasurer. Mr. Shoolroy will make his home in Canton where the general offices of the new concern will be located.

JOHNSTON ELECTED PRESIDENT

H. E. Johnston, formerly general sales manager of the Producers & Refiners Corp., has been elected president of the Independent Gas & Oil Co., Salt Lake City, Utah. The Producers & Refiners Corp. owns a majority stock interest in this company. In addition to his duties as head of the Independent Gas & Oil Co., Mr. Johnston will handle Producers & Refiners Corp.'s sales west of Parco, Wyo., and is still an employe of the latter.

A. T. Smith, assistant general sales manager, will succeed Mr. Johnston as general sales manager and will be in charge of all sales east of Parco, Wyo. B. L. Meece, formerly division sales agent at Chicago, Ill., will be promoted to assistant general sales manager. July 1 the Chicago office was closed, this territory being handled from the Independence office direct with the assistance of sales representatives with headquarters in Minneapolis, Minn.; Milwaukee, Wis.; Des Moines, Iowa, and Galesburg, Ill.

FORM NEW JOBBING COMPANY

William H. Lyons, president; Samuel Margolis, vice president, and Abraham Broder, secretary of the Municipal Service Corp., recently acquired by Warner-Quinlan Co., have resigned to form a new gasoline and lubricating oil jobbing business with temporary headquarters at Long Island City.

TO BUILD BULK PLANT

ASHEVILLE, N. C., Sept. 15.—Standard Oil Co. of New Jersey has acquired ground at Asheville, N. C., for the erection of a $250,000 bulk storage plant.

OLD DUTCH REFINERY STARTS OPERATIONS

The Old Dutch Refining Co. started operation of a new 3,500-bbl. tower plant in the Muskegon Field Friday. The plant is the second of four in the field to get into operation. Naphthas for the paint and varnish trade will be the principal product. The plant is located east of the city of Muskegon and represents an investment of about $300,000. An 8-mile pipe line transports oil from the producing leases in the Laketon Township area of the Muskegon Field to the plant.

Officers of the Old Dutch Refining Co., all of whom are Chicago business men, include Walter Schuttler as president; E. L. Hughes, head of the Hughes Oil Co., vice president; W. E. Anderson, vice president and general manager; and John Borden, secretary and treasurer.

Two other plants, one with a capacity of 500 bbls. and the other a 2,000-bbl. plant, will be ready for operation on or after October 1. They are the Muskegon Refiners, Inc., and the Henry H. Cross Co. plants, respectively. The Michigan Central Refining Co. has a 3,000-bbl plant in operation since August 15.

NOW AMERICAN OIL & GREASE

CHICAGO, Sept. 14.—The American Oil & Grease Corp. has acquired and taken over from the American Oil Corp., its lubricating oil and grease business including physical properties as well as names, trade-marks, and sale and purchase contracts. The business will be continued with no interruption by practically the same sales and office force as formerly with Andrew J. Callaghan as president. The organization will also do some business in tank car sales of refined petroleum products. The gasoline and light oil business of the American Oil Corp. was previously sold to the Sinclair Refining Co.

SELLS TO SHELL

ST. LOUIS, Sept. 14.—The Automobile Gasoline Co., of this city, has been purchased by the Shell Petroleum Corp. The former company is one of the oldest distributors of gasoline in St. Louis, and has several good stations at prominent street intersections.

WREITH GOES WITH SUN CO.

CHICAGO, Sept. 16.—George B. Wreith is now in charge of retail gasoline distribution with the Sun Co. in this city. He was, until recently, sales manager for the Lynch-Clarissey Co., distributors of fuel oils, motor oils and greases.

JOHN FORD RESIGNS

MILWAUKEE, Wis., Sept. 16.—John T. Ford, who has represented the Shaffer Oil & Refining Co. in Milwaukee for several years, has resigned. He is succeeded by J. R. Reedy of the Shaffer organization.

DAVIS WITH ELDORADO REFINING

The Eldorado Refining Co. announces the appointment of Elwood Davis as manager of tank car sales. It is planned to sell direct to jobbers in the company's natural marketing territory.

NEW DISTRIBUTOR

CHICAGO, Sept. 14.—The Stoleis Petroleum Co., Inc., has been incorporated for $10,000 to deal in petroleum products at retail. The headquarters will be at the corner of Kilpatrick and Fulton Streets, Chicago.

LOUISIANA REFINING PURCHASES GAY OIL CO.

SHREVEPORT, La., Sept. 16.—Purchase of the Gay Oil Co., of Little Rock, Ark., by the Louisiana Oil Refining Co., of Shreveport, was announced to employes of the former organization at a dinner in Little Rock, September 14, by T. J. Gay, head of the company, and M. J. Grogan, president of the Louisiana. By the purchase, effective October 1, the Shreveport concern acquires 29 bulk stations and four or five times as many retail outlets in Arkansas from Batesville on the north to the state line at Junction City and from Fort Smith on the Oklahoma line to and including Memphis, Tenn., on the east.

It is the fourth of a series of purchases of established distributing and retailing businesses by the Louisiana Co. in recent months, the first three being the purchase of the Panhandle Oil Co.'s 19 bulk plants and retail outlets in 58 communities of Mississippi; the Columbus Oil Co. operating four bulk plants and numerous retail agencies, and the Cook Oil Co., operating 12 bulk plants and numerous filling stations in central Mississippi. These purchases are a part of the expansion program the Louisiana Oil Refining Corp. decided upon several months ago and for which a separate department was created. This expansion division, with F. E. Wilkerson, general sales manager, as the director, has its own staff of appraisers, sales engineers, etc.

With the purchase of the Gay properties an Arkansas division of the sales department is to be created with S. E. Towery, formerly assistant manager of the Louisiana division, as manager with headquarters in Little Rock, Ark. No other changes in the personnel of the Gay organization will be made.

FIRE THREATENED PLANTS

NEW YORK, Sept. 16.—Damage estimated at $1,000,000 was suffered by the Swan and Finch Oil Co. at its plant in Linden, N. J., when it was partly destroyed by fire. For a time the fire threatened The Standard of New Jersey, Sinclair and Warner-Quinlan refineries and the Graselli Chemical Co.'s factory. The fire was started by lightning, which struck a Warner-Quinlan barge loaded with crude. The barge and cargo was a total loss, the flames spreading over the water and setting fires at the Swan & Finch and Standard of New Jersey plants.

Twenty thousand barrels of crude in storage on the shore at Standard of New Jersey's plant were lost with 10,000 bbls. of crude lost in the barge fire. The Standard of New Jersey's pipe line for barge loading was destroyed. New York City fire boats brought the fire under control by dumping a chemical foam on waters surrounding the refineries.

JOINS SHELL SALES STAFF

NEW YORK, Sept. 20.—E. G. Richardson, formerly chief chemist and technical adviser for Berry Bros., Inc., Detroit, paint and varnish manufacturers, has been appointed assistant in the by-products sales department of Shell Petroleum Corp.

Mr. Richardson will concentrate his efforts on sales promotion for technical naphthas. The Shell refinery at Wood River has recently converted several units for the production of mineral spirits complying with the specifications adopted by the Federation of Paint and Varnish Production Clubs and the American Paint and Varnish Manufacturers' association.

TONE OF EASTERN MARKET IS STRONGER

(Continued from Page 153)

from New York during the past three weeks (all figures in gallons unless otherwise noted):

	Week Ended		
	Sept. 7	Aug. 31	Aug. 24
Gasoline	56,000	240,000	665,000
Naphtha	2,100	358,200	1,226,300
Kerosene	41,600	12,000	21,000
Fuel oil	7,400	14,000	30,000
Lubricating Oil	833,600	949,200	961,000
Petroleum, refined	302,200	1,472,300	1,364,300
	Pounds		
Petrolatum	40,000		92,100
Paraffin wax	768,900	1,415,800	1,271,500
Refined	225,000	335,000	50,000
Scale	62,000	486,100	286,300
Lubricating grease	745,200	705,800	1,003,400

In addition to the foregoing, a shipment of 2,800,000 gallons of crude distillate on the tanker Goldsmouth for Curacao was reported during the week.

Imports

Imports of crude and refined oils at the principal United States ports for the week ended September 7 totaled 1,774,000 bbls., a daily average of 253,429 bbls., compared with 1,959,000 bbls., a daily average of 279 857 bbls., for the previous week and a daily average of 280,129 bbls. for the four weeks ended August 31. Details follow:

	Bbls. of 42 Gals.
At Atlantic Coast Ports	
Baltimore	212,000
Boston	30,000
New York	800,000
Philadelphia	146,000
Others	194,000
Total	1,682,000
Daily average	240,286
At Gulf Coast Ports	
New Orleans and Baton Rouge	92,000
Daily average	13,143
At all United States Ports	
Total	1,774,000
Daily average	253,429

California Oil Receipts

Receipts of California crude and refined oils at Atlantic ports for the week ended September 7 totaled 318,000 bbls., a daily average of 45,429 bbls., against 726,000 bbls., a daily average of 103,714 bbls. for the previous week and a daily average of 95 355 bbls. for the four weeks ended August 31. Details follow:

	Bbls. of 42 Gals.
New York	200,000
Philadelphia	118,000
Total	318,000
Daily average	45,429

The week's receipts consisted of 260,000 bbls. of gasoline and 58,000 bbls. of lubricants.

There were no receipts of California oils at Gulf Coast ports for the week.

Shipments of California refined products eastward for the week were as follows:

To New York—96,000 bbls. of gasoline on the Levant Arrow.

To Baltimore—144,800 bbls. of gasoline on the Australia; 96,000 bbls. of gasoline on the Cities Service Empire.

To Bayonne—77,000 bbls. of gasoline on the Larry Doheny; 73,000 bbls. of gasoline on the Harvester, and 128,000 bbls. of gasoline on the Tamiahua.

NO REAL CHANGE IN PRICES AT CHICAGO

(Continued from Page 152)

begin. Just as soon as the initial fillings are made the demand may drop off while waiting the first real cold spell, so much will depend for the immediate future of the market on the date of the first real cold snap. Often, in this climate, it does not come until the first part of January or the last part of December.

The industrial fuel oil market is in much the same position as furnace oils. There is a good present demand for consumption which is gradually increasing partly because of the greater activities of the industries and partly because of the near approach of the season when the boilers will be run for heat as well as power. It has been sufficiently chilly several nights to make it difficult to unload fuel oil with an ordinary pour test from cars without coils so the demand is for the zero fuels. There is plenty of the low gravity industrial fuel oils but little of the gravities beginning with 18-22 and ranging upward can be bought for early shipment.

Prices Stiffened

Prices have stiffened as more sources of supply have sold up and advanced their quotation on future deliveries. So far the usual advance has been 2½ cents a barrel, but by making a semiweekly advance the price is moved up 5 cents during the week. Offerings are light. Some 24-26 of poor reputation as to kind of oil was offered at 75 cents a barrel for ordinary cold test material. But the offerings are few and the buyers are the ones that are doing the running around right now. Consumers have not as yet felt the full advance for considerable oil was under contract at former prices and dealers in many cases are accepting their business at small increases in price. Some sales were made last week at prices at which the oil could not be replaced if at all.

There has been no change in the tank wagon scale in this territory. Smaller consumption is making the demand less active and the number of price cuts is on the increase although conditions have been much worse than they are right now. The newly adopted code of trade practices may have something to do with this condition as the older jobbers, who realize the benefits of a stable market with a good margin, are paying less attention in many places to the actions of the price cutter than they would have done, say last year.

Situation Not Ideal

Still, in many localities over the territory, the situation is not really what it should be. In this city where the station price is 20 cents including the tax, there are sections where the dealers are offering to sell at prices, tax included, as low as 17 cents, which corresponds to the 14-cent price which was offered before the tax went into effect.

Distributors of furnace oil chiefly, although they handle heavy fuels to supply large buildings, report that there have been many new domestic oil burners installed in their territory. The large integrated companies report that they have increased the number of their contracts to supply domestic oil burners. Several of the distributors to the residential districts have adopted the plan of regular deliveries. They fill the customers' tanks and thereafter through the season call at regular intervals and replace the oil that has been drawn out. The original price is based on the size of the tank, less than 450-gallon tanks being charged a higher price, but after the first filling the price for subsequent fills is the same as was charged at the original filling, not according to the quantity of oil delivered. This practice, the management of one of the largest companies said, was only fair as the plan of delivery is adopted for the convenience of the company, not of the customer.

OLD STILLS GIVE WAY TO ULTRA-MODERN

(Continued from Page 77)

470 degrees Fahrenheit, a pour point of 90 degrees Fahrenheit and a viscosity of 60 at 210 degrees Fahrenheit. This is further processed to centrifuging machines for dewaxing. This product results in a motor oil carrying a high flash point in relation to the viscosity.

Make Steam Refined Stock

At present the bottoms from the vacuum tower are drawn off to make steam refined stock without further processing. Under changing market conditions it is sometimes advantageous to make a maximum volume of steam refined stock as a residue stock and at other times the manufacture of overhead stocks is favored. The unit has successfully operated under each method and in this respect has proven very flexible. The stock made at present has a viscosity of 140 to 150 at 210 degrees Fahrenheit and a flash above 570 degrees Fahrenheit. This represents about 18 per cent of the original crude.

Solution Rerun Unit

Adjoining the topping unit and vacuum unit is the pressed distillate or solution rerun unit, used in the production of neutrals and bright stock. At present this is being used to rerun the pressed distillate in producing neutrals. However, the unit also can be used to rerun centrifuge solution to make bright stock.

The pipe still is very similar to the general design of the other two stills. It contains 107 tubes 1⅛ inches inside diameter and 8 feet long being used in the convection section and 46 tubes eleven-sixteenths-inch inside diameter and 8 feet long being used in the radiant section. The fractionating tower is 3½ feet in diameter, 65 feet high and contains 18 bubble cap sections. A large volume of exhaust steam enters the still and is superheated to 500 degrees Fahrenheit and enters the tower near the base. The overhead cut passes through a reflux condenser giving up a portion of its heat to the charging stock. The overhead cut is usually a gas oil and for tower control in varying the quality of the side cuts from the tower, it is possible to return a portion of the overhead gas oil stream to the top of the tower. As in the case of the other towers described, side streams may be taken from this tower at many points to produce a number of different grades of neutrals or special oils. At present the bottoms are being run to 140 viscosity at 100 degrees Fahrenheit, leave a flash of 415 and a fire of 475 degrees Fahrenheit. These bottoms represent about 55 per cent of the pressed distillate. This equipment was designed and constructed by the Smith Engineering Co.

REFINERS INSTALL VAPOR PHASE CRACKING PLANT

(Continued from Page 46)

in a few days. These were completed August 21, when the stove foundation will be ready to receive the large steel cylinders for the stoves and reaction chamber. To give an idea of the size of the cylinders, the stoves, of which there are three, are 24 feet in diameter and 120 feet high; the reaction chamber is 28 feet in diameter and 150 feet high. The concrete basin for the cooling tower on the hill is 20 feet wide, 350 feet long and 10 feet deep and will hold 300,000 gallons of water. This was completed August 1. Also the foundation for the gas holder on the hill is ready for the steel frame and holder.

TEST HELIUM CONTAINER IN SIMULATED WRECK

(Continued from Page 42)

pounds per square inch. The pressure was then decreased to 1,200 pounds. Again the pressure was increased to 2,000 pounds and this was subsequently decreased to 1,200 pounds, thus testing the elasticity of the steel. Finally the word was given that the vessel would be tested to destruction and the pressure raised to 4,500 pounds, at which point the vessel gave way, breaking into several pieces but not at the weld.

The elasticity and ductile strength of the tank was very apparent to observers of the tests made in the plant under hydrostatic pressure. As the pressure was increased or decreased the tank would swell like a rubber ball. It was placed between two steel posts and the sides of the tank could be seen to approach and recede from these posts with the pressure. At a point where the pressure had been increased to 4,000 pounds the diameter of the tank had increased 17 inches.

Tests After Wreck

When the pressure had been increased to 4,500 pounds the tank gave way in a most unusual fashion. It broke into nine pieces. All of these fragments were fairly large and across each one at the widest part was the weld, which did not give way at any point. Tests made showed that the steel in the heads of the two sections at points perpendicular to the weld which circled the vessel midway between these points was decreased by the strain. Actual measurements showed that it had been decreased in thickness to 1.05 inches.

The final results and the conclusions from the tests are expected to be incorporated in reports to be issued by the tank car committe of the American Railway Association and the A. O. Smith Corp. of Milwaukee, Wis.

Six of these tanks of slightly larger design are to be mounted on specially designed gondolas and will be used for the transportation of helium gas at a pressure of 2,000 pounds per square inch.

Previous to the train wreck and also while waiting for the tank to be returned to the plant from the scene of the wreck, the visitors were enabled, through the courtesy of the A. O. Smith Corp. to visit some of the most interesting departments of the great plant. The first place visited was the museum where are collected specimens of the concern's products and the results of many tests carried out in the plant. Thomas Jasper, head of the research department, gave a brief talk outlining the gradual development of the Smith weld. In the still plant, stills for cracking processes, pipe stills and bubble towers were in process of being electrically welded. One of the most interesting sights was the pipe mill and another the auto frame plant. Another feature shown was the new pipe storage house under construction for pipe in various diameters in lengths of 30 and 40 feet.

Cranfill-Reynolds Co. Completes Its Merger With Other Interests

CORSICANA, Tex., Sept. 14.—Final details of the merger of a number of oil interests into one big corporation were completed several days ago and these interests are now operating as parts of the Cranfill-Reynolds Co., with general headquarters in Dallas, according to information given out by the Central Texas Refining Co. offices here, one of the subsidiary concerns.

The parent corporation was capitalized at 2 500,000 shares with no par value.

Included in the merger were the Cranfill-Reynolds, Inc.; Cody Petroleum Co. of Wyoming, another production concern; the Moody-Seagraves oil interests with extensive holdings in Liberty and other South Texas counties; the Petroleum Pipe Line Co.; the Central Texas Refining Co. and some other smaller concerns.

The Central Texas Refining Co. will comprise the marketing and refining division of the new corporation and will maintain offices in Corsicana, the company now occupying the entire sixth floor of the State National Bank Building here.

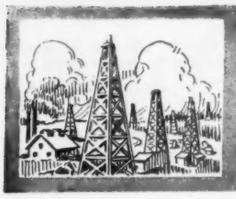
The corporation is now interested in development of projects in South Texas and New Mexico. It has recently brought in a well in Lea County, New Mexico, and the company's No. 3 Esperson in Liberty County was reported making 250 bbls. daily from around 2,200 feet, with the principal pay sand usually found at about 3,300 feet. No extensive development is planned now due to the large stocks of crude now on hand, officials stated.

C. R. Seagraves of Houston is chairman of the board of directors; T. E. Cranfill of Dallas, president. Other officers are J. H. Reynolds, Cisco; W. L. Moody III, Galveston; C. A. Middleton, Corsicana, and A. H. Richardson and J. Edgar Pew of Dallas.

TO COMPLETE REFINERY

The Wewoka Refining Co. which has been building a small skimming plant at Wewoka, Okla., has been merged with the Remington Oil Co. of Tulsa. James E. Dunn of Tulsa, who has been president of the Wewoka plant, has been elected vice president of the Remington company which is controlled by the Remington Brothers of Tulsa.

Construction work at the refinery will be resumed immediately. It is expected that the initial crude oil runs to stills will be made within a few weeks.



REFINERY AND CRUDE PRICES

Quotations on refined products are for interstate or export movement unless otherwise noted.

GASOLINE AND NAPHTHA

OKLAHOMA (Group 3)—	Sept. 17		Sept. 10		Sept. 3	
50-52 450 endpoint	.07	.07¼	.07¼	.07½	.07¼	.07½
56-58 450 endpoint	.07	.07¼	.07¼	.07½	.07¼	.07½
*58-60 437 endpoint (U. S. Motor)	.0775		.0773		.0775	
*60-62 437 endpoint	†.07½	.07¾	†.07½	.07¾	.0756	
*60-62 400 endpoint	.08		.08		.08	
*64-66 375 endpoint	†.08¼	.08½	.08625		†.08¼	.08½
68-70 360 endpoint	.08	.08½	.08¼	.08½	.08¼	.08½
64-66 437 endpoint (blend)	.07¼	.07½	.07¼	.07½	.07¼	.07½
NORTH TEXAS—						
56-58 450 endpoint	.06¾	.07	.07	.07¼	.07	.07¼
58-60 460 endpoint	.06¾		.07	.07¼	.07	.07¼
58-60 437 endpoint (U. S. Motor)	.07	.07¼	.07⅛	.07¼	.07⅛	.07¼
60-62 400 endpoint	.07¼		.07¼	.07⅜	.07¼	.07⅜
64-66 390 endpoint	.07⅜	.07½	.07⅜	.07½	.07⅜	.07½
64-66 375 endpoint	.07⅝	.07¾	.07⅝	.07¾	.07⅝	.07¾
68-70 360 endpoint	.08	.08¼	.08	.08¼	.08	.08¼
64-66 437 endpoint (blend)	.07¼	.07½	.07	.07¼	.07	.07¼
***NORTH LOUISIANA—**						
58-60 437 endpoint (U. S. Motor)	.07¾		.07¾	.08½	.08	.08½
***ARKANSAS—**						
58-60 437 endpoint (U. S. Motor)	.07¾	.08	.07¾	.08½	.08	.08½
PENNSYLVANIA—						
52-54 Naphtha	.08½	.09½	.08½	.09½	.08½	.09½
54-56 Naphtha	.08½	.08¾	.08½	.08¾	.08½	.08¾
58-60 Gasoline	.08¾	.09	.08¾	.09	.08¾	.09
60 Gasoline	.09	.09¼	.09	.09¼	.09	.09¼
62 Gasoline	.09¼	.09½	.09¼	.09½	.09¼	.09½
64 Gasoline	.09¾	.10	.09¾	.10	.10	.10½
68-70 350 endpoint gasoline	.10½	.11	.10½	.11	.11	
CALIFORNIA—						
58-60 437 endpoint (U. S. Motor) domestic	.09	.10	.09	.10	.09	.10
CHICAGO DISTRICT (Based on Group 3)—						
50-52 450 endpoint (Naphtha)	.07¼	.07½	.07¼	.07½	.07½	
56-58 450 endpoint	.07¼	.07½	.07¼	.07½	.07⅝	.07½
58-60 437 endpoint (U. S. Motor)—	.07¼	.07¾	.07¼	.07¾	.07⅝	.07¾
60-62 400 endpoint	.07⅝	.07¾	.07¾	.08	.07¾	.08
64-66 375 endpoint	.08	.08¼	.08	.08¼	.08	.08¼
68-70 360 endpoint	.08¼	.08½	.08¼	.08½	.08¼	.08½
64-66 437 endpoint (blend)	.07¼	.07½	.07¼	.07½	.07⅝	.07⅞
GULF COAST (Export)—						
58-60 (U. S. Motor)	.08½		.08½		.08½	
60-62 400 endpoint	.09½		.09½		.09½	
61-63 390 endpoint	.09¾		.09¾		.09¾	
64-66 375 endpoint	.10		.10		.10	

*Louisiana, Arkansas, Mississippi and East Texas delivery.

NATURAL GASOLINE

OKLAHOMA (Group 3)—	Sept. 17		Sept. 10		Sept. 3	
Grade A, 72-79.9, 375 e.p., rec. 90%	.06¾	.07	.06½		.06½	.06¾
Grade AA, 80-87.9, 375 e.p., rec. 90%	.06¾		.06⅜	.06½	.06½	.06¾
Grade B, 76-83.9, 375 e.p., rec. 85%	.06½		.06⅛	.06¼	.06¼	.06½
Grade BB, 84-92, 375 e.p., rec. 85%	.06½		.06⅛	.06¼	.06¼	.06½
Grade C, 80-90, 375 e.p., rec. 78%	.06½		.06¼	.06¼	.06¼	.06½
NORTH TEXAS—						
Grade A, 72-79.9, 375 e.p., rec. 90%	.06¾		.06½		.06½	.06¾
Grade AA, 80-87.9, 375 e.p., rec. 90%	.06⅝	.06¾	.06⅜	.06½	.06½	.06¾
Grade B, 76-83.9, 375 e.p., rec. 85%	.06½		.06⅛	.06¼	.06¼	.06½
Grade BB, 84-92, 375 e.p., rec. 85%	.06½		.06⅛	.06¼	.06¼	.06½
Grade C, 80-90, 375 e.p., rec. 78%	.06½		.06⅛	.06¼	.06¼	.06½
NORTH LOUISIANA—						
Grade AA, 80-87, 375 e.p., rec. 90%	.06⅞	.07⅛	.06⅝	.06¾	.06¾	.07
Grade BB, 84-92, 375 e.p., rec. 85%	.06¾		.06½	.06⅝	.06⅝	.06¾
Grade C, 80-90, 375 e.p., rec. 78%	.06¾		.06½	.06⅝	.06⅝	.06¾
CALIFORNIA—						
75-78 375-390 endpoint	.08¼	.08¾	.08¾	.09¼	.08¾	.09¼
CHICAGO DISTRICT (Based on Group 3)—						
Grade A, 72-79.9, 375 e.p., rec. 90%	.06¾		.06⅜	.06½	.06⅝	.06¾
Grade AA, 80-87.9, 375 e.p., rec. 90%	.06¾		.06⅜	.06½	.06⅝	.06¾
Grade B, 76-83.9, 375 e.p., rec. 85%	.06½		.06⅛	.06¼	.06⅜	.06½
Grade BB, 84-92, 375 e.p., rec. 85%	.06½		.06¼	.06¼	.06⅜	.06½
Grade C, 80-90, 375 e.p., rec. 78%	.06½		.06¼	.06¼	.06⅜	.06½

BURNING OIL

OKLAHOMA (Group 3)—	Sept. 17		Sept. 10		Sept. 3	
41-43 water white kerosene	.05	.05½	.05⅜	.05¾	.05½	.05¾
42-44 water white kerosene	.05¼	.05¾	.06	.06¼	.06	.06¼
***NORTH LOUISIANA—**						
41-43 water white kerosene	.05¼	.05¾	.06	.06¼	.06	.06¼
NORTH TEXAS—						
41-43 water white kerosene	.05	.05⅛	.05⅛	.05¼	.05¼	.05⅜
40-42 water white kerosene	.04⅞	.05	.05	.05⅛	.05	.05⅛
***ARKANSAS—**						
41-43 water white kerosene	.05¾	.06	.06	.06¼	.06	.06¼
PENNSYLVANIA—						
43 Kerosene prime white	.06	.06¼	.06	.06¼	.06	.06¼
45 Kerosene water white	.06¼	.06½	.06¼	.06½	.06¼	.06½
46 Kerosene water white	.06½	.06¾	.06½	.06¾	.06½	.06¾
47 Kerosene water white	.06¾	.07	.06¾	.07	.06¾	.07
300 Mineral Seal	.06½	.07	.06½	.07	.06½	.07
CALIFORNIA—						
38-40 water white Kero. (high-burning test)	.05	.05½	.05	.05½	.05½	.06
Engine distillate, 43-44, 445 endpoint	.08	.08¾	.08	.08¾	.08	.08¾
Engine distillate, 42-44, 480 endpoint	.07½	.08¼	.07½	.08¼	.07½	.08¼
CHICAGO DISTRICT (Based on Group 3)—						
41-43 water white kerosene	.05¼	.05¾	.05½	.05¾	.05½	.05¾
42-44 water white kerosene	.05⅝	.06	.05¾	.06	.05¾	.06
GULF COAST (Export)—						
41-43 prime white	.07		.07		.07	
41-43 water white	.08		.08		.08	

*Louisiana, Arkansas, Mississippi and East Texas delivery.

FUEL OIL

OKLAHOMA (Group 3)—	Sept. 17		Sept. 10		Sept. 3	
Below 18 Fuel Oil, per bbl.	.50	.55	.50	.55	.50	.55
18-22 Fuel Oil, per bbl.	.55	.60	.55	.60	.55	.60
20-22 Fuel Oil, per bbl.	.57½	.65	.57½	.62½	.57½	.62½
22-26 Fuel Oil, per bbl.	.70	.75	.70	.75	.70	.75
24-26 Fuel Oil, per bbl.	.75	.80	.72½	.77½	.72½	.77½
26-30 Fuel Oil, per bbl.	.80	.85	.80	.85	.80	.85
28-30 Fuel Oil, per bbl. (industrial)	.90	1.05	.90	1.00	.90	.95
32-36 Gas Oil (industrial)	.02¾		.02⅝	.02¾	.02½	.02⅝
32-36 Gas Oil (straw color)	.02¾	.03	.02¾	.03	.02⅝	.02⅞
36-38 Distillate	.03⅝	.03¾	.03½	.03⅝	.03½	.03⅝
38-40 Straw Distillate	.03¾	.04	.03⅝	.03⅞	.03⅝	.03⅞
NORTH TEXAS—						
Below 20 Fuel Oil	.60	.65	.60	.65	.60	.65
24-26 Fuel Oil, per bbl.	.65	.70	.65	.70	.65	.70
32-36 Gas Oil (straw)	.02⅝	.02¾	.02⅝	.02¾	.02⅝	.02¾
38-40 Straw Distillate	.03½	.03¾	.03½	.03¾	.03½	.03¾
***NORTH LOUISIANA—**						
18-20 Fuel Oil, per bbl.	.70	.75	.70	.75	.70	.75
30-32 Gas Oil	.02¾	.03	.02¾	.03	.02¾	.03
***ARKANSAS—**						
33-36 Distillate	.03	.03¼	.03	.03¼	.03	.03¼
30-32 Gas Oil	.02¾	.03	.02¾	.03	.02¾	.03
16-22 Refinery Fuel Oil, per bbl.	.70	.75	.70	.75	.70	.75
GULF COAST (South Texas)—						
Gas Oil	.04	.04¼	.04	.04¼	.03¾	.04
Bunker C Fuel (cargo lots), per bbl.	.75	.80	.75	.80	.70	.80
Bunker C Fuel (small lots)	1.00	1.05	1.00	1.05	.95	1.00
PENNSYLVANIA—						
30-34 Fuel Oil	.04	.04¼	.04	.04¼	.04	.04¼
36-40 Fuel Oil	.04¼	.04½	.04¼	.04½	.04¼	.04⅝
CALIFORNIA—						
33-36 Distillate	.03½	.04	.03½	.04	.04	.04½
26-32 Distillate	.02½	.03	.02½	.03	.03	.03½
15-20 Fuel Oil, Bunker (at tide water)	.65	.85	.65	.85	.65	.85
15-20 Fuel Oil (cargo lots), per bbl.	.70	.85	.70	.85	.70	.85
27 plus Diesel, per bbl.	.90	1.05	.90	1.05	.90	1.05
CHICAGO DISTRICT (Based on Group 3)—						
22-26 Fuel Oil, per bbl.	.70	.75	.65	.70	.65	.70
18-22 Fuel Oil, per bbl.	.57½	.65	.57½	.62½	.52½	.57½
28-30 Fuel Oil	1.00	1.10	.95	1.00	.92½	.97½
32-36 Gas Oil (zero)	.02¾	.03⅛	.02¾	.03	.02¾	.03⅛
32-36 Gas Oil (industrial)	.02⅝	.02¾	.02½	.02⅝	.02½	.02⅝
36-38 Distillate	.02⅜	.02¾	.03½	.03⅝	.03¼	.03⅜
38-40 Straw Distillate	.03¾	.04	.03⅝	.03¾	.03½	.03¾

*Louisiana, Arkansas, Mississippi and East Texas Delivery.

LUBRICATING OIL AND WAX

OKLAHOMA (Group 3)—	Sept. 17		Sept. 10		Sept. 3	
100 vis., 2 color, 20-25 cold test	.06¾	.07	.06¾	.07	.06¾	.07
100 vis., 3 color, 20-25 cold test	.05¾	.06	.05¾	.06	.05¾	.06
150 vis., 3 color, 20-25 cold test	.07¾	.08	.07¾	.08	.07¾	.08
150 vis., 4 color, 20-25 cold test	.07¼	.07½	.07¼	.07½	.07¼	.07½
180 vis., 3 color, 23-28 cold test	.09¼	.09½	.09¼	.09½	.09¼	.09½
180 vis., 5 color, 23-28 cold test	.08½	.08¾	.08½	.08¾	.08½	.08¾
200 vis., 3 color, 23-28 cold test	.09¾	.10	.09¾	.10	.09¾	.10
200 vis., 4 color, 23-28 cold test	.09¼	.09½	.09¼	.09½	.09¼	.09½
200 vis., 5 color, 23-28 cold test	.08¾	.09	.08¾	.09	.08¾	.09
240 vis., 3 color, 25-30 cold test	.13¼	.13½	.13¼	.13½	.13¼	.13½
240 vis., 4 color, 25-30 cold test	.12¼	.12½	.12¼	.12½	.12¼	.12½
240 vis., 5 color, 25-30 cold test	.11¾	.12	.11¾	.12	.11¾	.12
280 vis., 3 color, 25-30 cold test	.15¾	.16	.15¾	.16	.15¾	.16
280 vis., 4 color, 25-30 cold test	.14¾	.15	.14¾	.15	.14¾	.15
280 vis., 5 color, 25-30 cold test	.13¾	.14	.13¾	.14	.13¾	.14
Cylinder Stocks:						
600, steam refined, light green	.11	.13	.12	.14	.12	.14
600, steam refined, dark green	.10	.11	.11	.13	.11	.13
190-200 vis., D color Bright Stock	.40	.41	.40	.41	.40	.41
150-160 vis., D color Bright Stock	.36	.37	.36	.37	.36	.37
150-160 vis., E color Bright Stock	.30	.33	.30	.33	.30	.33
Waxes:						
124-126 White Crude Scale Wax	.02¾	.03	.02¾		.02¾	
PENNSYLVANIA—						
34 Neutral	.07½	.07¾	.07½	.07¾	.07½	.07¾
34 Sundebloom	.07½	.07¾	.07½	.07¾	.07½	.07¾
36 Miners' Neutral	.07¼	.07½	.07¼	.07½	.07¼	.07½
150, 3 color	.16½	.17	.17½	.18	.18½	.19
180, 3 color	.21½	.22	.23	.23½	.23	.23½
200, 3 color	.25½	.26	.25½	.26	.25½	.26
220, 3 color	.26½	.27	.28½	.29	.28½	.29
600, steam refined	.23	.23½	.23	.23½	.23	.23½
635, steam refined	.26	.28½	.26	.28½	.26	.28½
650, steam refined	.28½	.29	.28½	.29	.28½	.29
600, Pennsylvania Flash	.30½	.31	.30½	.31	.30½	.31
630, Pennsylvania Flash	.35	.37½	.35	.37½	.35	.37½
600, E filtered	.32½	.33½	.32½	.33½	.32½	.33½
600, D filtered	.36	.37	.36	.37	.36	.37
Pennsylvania Bright Stock	.51	.52	.51	.51½	.51	.51½
*122-124 White Crude Scale Wax	.02¾	.03	.02¾	.03	.02¾	.03
*124-126 White Crude Scale Wax	.03	.03⅛	.03	.03⅛	.03	.03⅛

*At New York.

GULF COAST (South Texas)—						
No. 2 color, 100 vis., pale oil	.05¾	.06½	.05¾	.06½	.05¾	.06½
No. 3 color, 200 vis., pale oil	.09	.09½	.09	.09½	.09	.09½
No. 3 color, 300 vis., pale oil	.09¾	.10¼	.09¾	.10¼	.09¾	.10¼
No. 3½ color, 500 vis., pale oil	.11½	.12	.11½	.12	.11½	.12
No. 4 color, 750 vis., pale oil	.12½	.13	.12½	.13	.12½	.13
No. 5 to 6 color, 200 vis., red oil	.08	.08½	.08	.08½	.08	.08½

REFINERY AND CRUDE PRICES

Quotations on refined products are for interstate or export movement unless otherwise noted.

No. 5 to 6 color, 300 vis., red oil	.08¾	.09¼	.08¾	.09¼	.08¾	.09¼
No. 5 to 6 color, 500 vis., red oil	.09½	.10	.09½	.10	.09½	.10
No. 5 to 6 color, 750 vis., red oil	.11¾	.12¼	.11¾	.12¼	.11¾	.12¼
No. 2½ color, 200 vis., pale filtered	.11	.12	.11	.12	.11	.12
No. 2½ color, 300 vis., pale filtered	.12	.13	.12	.13	.12	.13
No. 2½ color, 500 vis., pale filtered	.14½	.15	.14½	.15	.14½	.15
No. 2½-3 color, 750 vis., pale filtered	.17	.19	.17	.19	.17	.19
CALIFORNIA—						
130 vis., 2½-3 color	.10¼	.10½	.10¼	.10½	.10¼	.10½
200 vis., 2½-3 color	.11½	.11¾	.11½	.11¾	.11½	.11¾
300 vis., 3-3½ color	.13	.13½	.13	.13½	.13	.13½
350 vis., 3½-4 color	.13½	.13¾	.13½	.13¾	.13½	.13¾
400 vis., 3½-4 color	.15	.15½	.15	.15½	.15	.15½
Red Neutral:						
200 vis., 4½-5 color	.11	.11¼	.11	.11¼	.11	.11¼
300 vis., 5-6 color	.12	.12¼	.12	.12¼	.12	.12¼
400 vis., 5-6 color	.13¼	.14	.13¼	.14	.13¼	.14
500 vis., 4½-5 color	.14¼	.15½	.14¼	.15½	.14¾	.15½
500 vis., 5-6½ color	.15	.15¼	.15	.15¼	.15	.15¼
600 vis., 6½ plus color	.16	.16¼	.16	.16¼	.16	.16¼

Note—Bright stocks are not manufactured commercially on the Pacific Coast.

NEW YORK (BAYONNE) REFINERY PRICES

	Sept. 17	Sept. 10	Sept. 3
Gasoline, U. S. Motor, 58-60, 437	.09	.09	.09
Kerosene, water white, 41-43	.08	.08	.08
*Fuel Oil, Bunker "C," 14-16, per bbl.	1.05	1.05	1.05
†Fuel Oil, Diesel, 28-30, per bbl.	2.00	2.00	2.00
Gas Oil, 32-36 gravity	.05¼	.05¼	.05¼
25 pale Paraffin Oil	.10½	.10½	.10½
32 pale Paraffin Oil	.07¼	.07¼	.07¼
285 red Paraffin Oil	.11½	.11½	.11½
250 red Paraffin Oil	.11	.11	.11
225 red Paraffin Oil	.09½	.09½	.09½
200 red Paraffin Oil	.09	.09	.09
Refined Wax:			
120-122 a.m.p., per lb.	.04	.03⅞	.03⅞
125-127 a.m.p., per lb.	.04¼	.04⅛	.04⅛
130-132 a.m.p., per lb.	.05½	.05⅜	.05⅜
133-135 a.m.p., per lb.	.06⅛	.06	.06
135-137 a.m.p., per lb.	.06¼	.06⅛	.06⅛
Petrolatum in barrels, carload lots, per pound:			
Dark green	.019	.019	.019
Amber	.03⅝	.03⅝	.03⅝
Extra amber	.03⅞	.03⅞	.03⅞
Cream	.06⅜	.06⅜	.06⅜
Lily White	.07⅜	.07⅜	.07⅜
Snow White	.08⅜	.08⅜	.08⅜

*Lighterage 5.0 cents a barrel extra. †Lighterage 6.5 cents a barrel extra.

NEW YORK (BAYONNE) EXPORT PRICES

	Sept. 17	Sept. 10	Sept. 3
Kerosene, prime white	.08	.08	.08
Kerosene, water white	.09	.09	09
600, steam refined cylinder stocks, in bbls.	.29½	.29½	.29½
635, steam refined	.32½	.32½	.32½
650, steam refined	.36½	.36½	.36½
600, Pennsylvania Flash	.42½	.42½	.42½
630, Pennsylvania Flash	.46½	.46½	.46½
600, Warren E	.40	.40	.40
600, Oil City E	.39	.39	.39
Light 140-150 Bright Stocks	.60	.60	.60
Dark 140-150 Bright Stocks	.58	.58	.58

LOS ANGELES EXPORT PRICES

	Sept. 17		Sept. 10		Sept. 3	
Kerosene, water white	.04½	.05	.04½	.05	.05	.05½
U. S. Motor Gasoline, 53-55 437 e.p.	.07	.07½	.07	.07½	.07	.07½

CRUDE OIL PRICES

OKLAHOMA, KANSAS, NORTH AND EAST CENTRAL TEXAS

Corsicana heavy (January 11)* ..... .80
Other fields .....See gravity table

*Posted by Magnolia Petroleum Co.

TEXAS PANHANDLE

Gray County, Wheeler County and Carson-Hutchinson Counties—See gravity table.

WEST TEXAS

Iatan* .....Same as North Texas
Crane-Upton-Crockett, Pecos, Winkler, Mitchell, and Glasscock (See gravity table).
Chalk† ..... .65

*Includes Howard County and Westbrook Fields.
†Posted by Humble Oil & Refining Co.

ARKANSAS-NORTH LOUISIANA

Smackover, below 24 gravity (May 20, 1929) .....$ .85
Smackover, 24 gravity and above (May 20, 1929) 1.00
Cotton Valley (Below 36 gravity May 23) ..... .85
Bellevue (May 29, 1929) 1.30
Urania (May 21, 1929) 1.10
East El Dorado (May 22, 1929) ..... .85
Other fields.....See gravity table

Cotton Valley crude above 36 gravity takes same gravity price schedule as shown for North Louisiana and Arkansas crude in Mid-Continent gravity price table.
Note—Smackover, Cotton Valley and Bellevue posted by Standard Oil Co. of Louisiana, and Magnolia Petroleum Co.; Urania posted by Louisiana Oil Refining Corp.; East El Dorado, Magnolia Petroleum Co.

GULF COAST

Grade A (May 20)* $1.30
Grade B .....See gravity table
Jennings, La. (March 14)† 1.05
Saratoga, Batson, Dayton (March 14, 1927)‡ 1.20
Markham (March 14)‡ 1.00
High Island (December 14)‡ 1.00
*Humble Oil & Refining Co., The Texas Company, Gulf Pipe Line Co., and Sun Pipe Line Co. †Gulf Pipe Line Co. ‡Sun Pipe Line Co. §The Texas Company.
‖Posted by Gulf Pipe Line Co.

ROCKY MOUNTAIN STATES
Ohio Oil Co.-Midwest Refining Co.
(Effective May 21, 1929)

Rock Creek, Wyo. $1.40
Salt Creek .....See gravity table
Big Muddy 1.43
Grass Creek, heavy (July 27, 1928) ... .90
Grass Creek, light 1.65
Mule Creek 1.20
Elk Basin 1.65
Lance Creek 1.68
Poison Spider (March 14, 1927) 1.00
Notches (March 14, 1927) ..... .65
Rex Lake (February 23) 1.10
Osage 1.65
Lost Soldier (contract, May 22) 1.05
Hamilton Dome (March 14, 1927) ..... .85
Pedro 1.25
Greybull 1.65
Four Bear ..... .85
Cat Creek (Montana) (July 27, 1928).. 1.48

(Continued on Page 160)

CRUDE OIL GRAVITY TABLE

Gravity—	Okla., Kans., N. C. Texas 1	No. La and Arkansas 2	Crane, Upton, Crockett, Winkler, Howard, Pecos, Texas crude, and Lea, N. Mex. 3	Stephens, Ark. 4	Wheeler (Texas Panhandle) 5	Gray County (Texas Panhandle) 6	Carson and Hutchinson (Texas Panhandle) 7	Salt Creek, Wyo. 8	Grade B and Light Crude (G. Coast) 9	Somerset (South Central Texas) 10
24 and above	....	....	....	....	....	....	....	....	....	....
Below 24	....	....	....	....	....	....	....	....	....	....
Below 25	.85	....	.70	....	....	....	....	....	1.16	....
25 to 25.9	.90	....	.74	....	....	....	....	....	1.18	....
26 to 26.9	.95	....	.78	....	....	....	....	....	1.21	....
27 to 27.9	1.00	....	.82	....	....	....	....	....	1.24	....
Below 28	....	1.00	....	.90	.90	.90	.90	....	....	....
28 to 28.9	1.05	1.05	.86	.94	.90	.90	.90	....	1.27	....
29 to 29.9	1.10	1.10	.90	.98	.90	.95	.90	1.10	1.30	....
30 to 30.9	1.15	1.15	.95	1.02	.95	1.00	.90	1.15	1.33	....
31 to 31.9	1.20	1.20	.98	1.06	1.00	1.05	.90	1.20	1.36	....
32 to 32.9	1.25	1.25	1.02	1.10	1.05	1.10	.95	1.25	1.39	1.08
33 to 33.9	1.30	1.30	1.06	....	1.10	1.15	1.00	1.30	1.42	1.07
34 to 34.9	1.35	1.35	1.10	....	1.15	1.20	1.05	1.35	1.45	1.09
35 to 35.9	1.40	1.40	1.14	....	1.20	1.25	1.10	1.40	1.48	1.11
36 to 36.9	1.45	1.45	1.18	....	1.25	1.30	1.15	1.45	....	1.13
37 to 37.9	1.50	1.50	....	....	1.30	1.35	1.20	1.50	....	1.16
38 to 38.9	1.55	1.55	....	....	1.35	1.40	1.25	....	....	1.17
39 to 39.9	1.60	1.60	....	....	1.40	1.45	1.30	....	....	....
40 to 40.9	1.65	1.65	....	....	1.45	1.50	1.35	....	....	....
41 to 41.9	1.70	1.70	....	....	1.50	1.55	1.40	....	....	....
42 to 42.9	1.75	1.75	....	....	1.55	1.60	1.45	....	....	....
43 to 43.9	1.80	1.80	....	....	1.60	1.65	1.50	....	....	....
44 and above	1.85	1.85	....	....	1.65	1.70	1.55	....	....	....

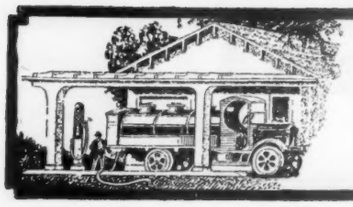
Column 1, Note—Magnolia Petroleum Co. posted schedule May 20, 1929, making price below 26 gravity 70 cents per barrel, 26-26.9 gravity 75 cents, 27-27.9 gravity 85 cents, 28-28.9 gravity 90 cents, 29-29.9 gravity 95 cents, 30-30.9 gravity $1.05, and 31-31.9 gravity $1.15, with balance of the price schedule as shown above.
Oklahoma—Carter Oil Co., Prairie Oil & Gas Co., Sinclair Oil & Gas Co., Gypsy Oil Co., The Texas Company, May 20.
North Central Texas—Including Ranger, Mexia, Powell, Richland, Wortham, Lytton Springs, Currie, Nocona and Moran, Prairie Oil & Gas Co., Sinclair Oil Refining Co., Humble Oil & Refining Co., The Texas Company and Gulf Refining Co., May 20
Kansas—Prairie, Sinclair, The Texas Company and Carter, May 20.
Column 2—Arkansas and North Louisiana—(Caddo, Bull Bayou, Crichton, Cotton Valley, above 36 gravity, DeSoto, Haynesville, Homer and El Dorado only) May 22, Standard Oil Co. of Louisiana, Louisiana Oil Refining Co., Gulf Refining Co., Magnolia Petroleum Co., schedule applies to Pine Island, Haynesville, Bull Bayou, Louisiana and El Dorado, Ark., light crude.
Column 3—Humble Oil & Refining Co. and Magnolia Petroleum Co., May 20.
Column 4—Atlantic Oil Producing Co., Prairie Oil & Gas Co., Louisiana Oil Refining Corp., May 21, 1929.
Columns 5, 6 and 7—Humble Oil & Refining Co., Magnolia Petroleum Co., May 20, 1929.
Column 8—Midwest Refining Co., May 20, 1929. All crude over 37 gravity $1.50 per barrel.
Column 9—Humble Oil & Refining Co., May 20, 1929, (schedule ends 35 and above.)
Column 10—Grayburg Pipe Line Co. and Pioneer Oil & Refining Co., April 7.

CALIFORNIA CRUDE OIL PRICES

Standard Oil Co.-Union Oil Co. (Effective January 18, 1929

Gravity—	Salt Lake, Potrero, Newport, Long Beach, Summerland, Lawndale, Los Angeles, Fullerton, Richfield, Torrance, Olinda-Brea, Alamitos Heights, Signal Hill, Seal Beach, Huntington Beach, Athens, Inglewood, Rosecrans-Dominguez, Watsonville 1	Whittier, La Habra, Coyote Hills 2	Midway-Sunset, Elk Hills, Lost Hills, Belridge, Buena Vista Hills 3	Montebello 4	Santa Fe Springs 5	Santa Maria Coalinga 6	Wheeler Ridge Fruitvale 7	Orcutt Ventura, Rincon 8	Ventura Ave. 9	Elwood Terrace 10
14 to 14.9	.70	.70	.50	.70	....	.50	.50	.65	.70	....
15 to 15.9	.70	.70	.50	.70	....	.50	.50	.65	.70	....
16 to 16.9	.70	.70	.50	.70	....	.50	.50	.65	.70	....
17 to 17.9	.70	.70	.50	.70	....	.50	.50	.65	.70	....
18 to 18.9	.75	.75	.56	.70	....	.56	.56	.70	.75	....
19 to 19.9	.80	.80	.62	.75	....	.62	.62	.70	.80	....
20 to 20.9	.85	.84	.68	.80	....	.68	.68	.70	.85	....
21 to 21.9	.89	.88	.74	.85	.89	.74	.74	.86	.86	....
22 to 22.9	.93	.91	.80	.90	.92	.80	.80	.87	.87	....
23 to 23.9	.97	.94	.85	.95	.95	.85	.85	.90	.90	....
24 to 24.9	1.01	.97	.90	.98	.98	.88	.88	.94	.94	....
25 to 25.9	1.05	1.00	.95	1.01	1.01	.91	.91	.98	.98	....
26 to 26.9	1.09	1.04	1.00	1.04	1.04	.94	.94	1.02	1.02	....
27 to 27.9	1.13	1.08	1.05	1.07	1.07	.98	.97	....	1.06	....
28 to 28.9	1.17	1.12	1.10	1.10	1.10	1.02	....	....	1.10	....
29 to 29.9	1.21	1.16	1.16	1.13	1.15	1.06	....	....	1.14	....
30 to 30.9	1.25	1.20	1.22	1.16	1.20	1.10	....	....	1.18	....
31 to 31.9	1.30	....	1.28	....	1.25	1.14	....	....	1.22	....
32 to 32.9	1.35	....	1.34	....	1.30	1.18	....	....	1.28	....
33 to 33.9	1.41	....	1.40	....	1.35	1.22	....	....	1.34	....
34 to 34.9	1.47	....	1.46	....	1.40	1.26	....	....	1.40	1.16
35 to 35.9	1.53	....	....	....	1.45	1.30	....	....	1.46	1.22
36 to 36.9	1.59	....	....	....	1.50	....	....	....	1.52	1.28
37 to 37.9	1.65	....	....	....	1.55	....	....	....	1.58	1.34
38 to 38.9	1.71	....	....	....	1.60	....	....	....	1.64	1.40
39 to 39.9	1.77	....	....	....	1.65	....	....	....	1.70	1.46
40 to 40.9	1.83	....	....	....	....	....	....	....	1.76	1.52
41 to 41.9	1.89	....	....	....	....	....	....	....	1.82	1.58
42 to 42.9	1.95	....	....	....	....	....	....	....	1.88	1.64

Kern River, Newhall-McKittrick, Mount Poso and Round Mountain 11 to 13.9 gravity 45 cents, 14 gravity and above 50 cents, effective October 2, 1929. On December 1, 1928, the Union Oil Co. posted Midway-Sunset, Elk Hills, Buena Vista, Lost Hills and Coalinga crude as follows: 11 to 13.9 gravity at 45 cents, 14 gravity and above 50 cents.
Column 1—Signal Hill, Seal Beach, Huntington Beach and Alamitos Heights crude, 14 to 32.9 gravity, inclusive; Richfield, Olinda-Brea and Fullerton, 14 to 34.9 gravity; Torrance and Inglewood, 14 to 28.9 gravity; Dominguez and Athens-Rosecrans, 24 to 42.9 gravity.
Column 2—Whittier crude, 14 to 22.9 gravity; Coyote Hills, 14 to 30.9 gravity.
Column 3—Kern River, Newhall and McKittrick, 11 to 13.9 gravity; Midway-Sunset, Buena Vista and Elk Hills, 11 to 33.9 gravity; Lost Hills, 11 to 34.9 gravity; oil below 14 gravity posted at 45 cents.
Column 6—Oil below 14 gravity posted at 45 cents.
Columns 8 and 9—Posted by Union Oil Co. only.



TANK WAGON MARKETS

Tank wagon quotations for gasoline and kerosene in United States as furnished by the larger marketing concerns Sept. 17.

ALL TANK WAGON AND SERVICE STATION QUOTATIONS INCLUDE TAXES

STANDARD OIL CO. (INDIANA)

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Chicago dist.†..	19.0	20.0	3.0	13.0
Decatur, Ill. ...	19.2	20.2	3.0	13.1
E. St. Louis ...	18.4	17.4	3.0	12.2
Joliet	19.4	20.4	3.0	13.3
Peoria	19.2	20.2	3.0	13.1
Quincy	19.2	20.2	3.0	12.9
Davenport, Ia..	19.5	20.5	3.0	13.3
Des Moines ...	19.5	20.5	3.0	13.3
Keokuk	19.5	20.5	3.0	13.3
Sioux City	19.1	20.1	3.0	12.9
Duluth, Minn..	20.5	21.5	3.0	13.9
Mankato	20.1	21.1	3.0	13.7
Minneapolis ...	20.2	21.2	3.0	13.9
LaCrosse, Wis..	19.2	20.2	2.0	14.0
Milwaukee	18.1	19.1	2.0	12.9
Madison	17.8	18.8	2.0	13.1
Detroit, Mich...	19.8	20.8	3.0	14.7
Grand Rapids..	19.7	20.7	3.0	14.6
Saginaw	19.9	20.9	3.0	14.8
Evansville, Ind.	20.0	21.0	4.0	14.0
Fort Wayne ...	20.4	21.4	4.0	14.4
Indianapolis ..	20.2	21.2	4.0	14.2
South Bend ...	20.4	21.4	4.0	14.4
Fargo, N. D. ..	21.9	22.9	3.0	15.9
Huron, S. D. ..	21.3	22.3	4.0	14.7
Sioux Falls	20.1	21.1	4.0	14.4
K. C., Mo.* ...	18.9	19.9	3.0	11.6
Springfield* ...	18.8	19.8	3.0	12.5
St. Louis*	17.9	18.9	2.5	12.3
St. Joseph	18.5	19.5	2.0	12.0
Wichita, Kans..	17.8	18.8	3.0	11.8
Bartlesville, Ok.	18.5	19.5	4.0	11.5

*State tax 2 cents; remainder city tax.
†Effective February 20, discounts on Q.D.A. in Chicago district 2 cents off service station price on purchases of 500 gallons or more per month and 4 cents on purchases of 1,000 gallons or more per month.

NAPHTHA

	Tank wagon	Tank car
Oleum spirits	15.7	12.9
V. M. & P. Naphtha	17.2	13.9
Cleaner's naphtha	17.0	14.0
Stanisol	18.0	15.4

Tank wagon prices f.o.b. Chicago; tank car prices f.o.b. Whiting.

STANOLIND FURNACE OIL IN CHICAGO

Less than 100 gallons	9.0
100 to 799 gallons	8.0
800 gallons or more	7.5

Note—Outside Chicago furnace oil discount of 1 cent per gallon is given on deliveries of 100 to 349 gallons and 1½ cents on deliveries of 350 gallons or more.

The following quantity discounts from the service station price are allowed on monthly sales of gasoline; 2,000 gallons or less, 2 cents; more than 2,000 and less than 6,000 gallons, 2½ cents; more than 6,000 gallons, 3 cents. Discounts are allowed each month, and they are not cumulative. Delivery tickets showing date and quantity delivered must be sent to the seller before the tenth of the month to secure the discount on the previous month's purchases.

SOUTHWESTERN DISTRICT

Magnolia Petroleum Co.

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Dallas, Tex. ...	17.0	21.0	4.0	13.0
Fort Worth ...	17.0	20.0	4.0	12.0
Houston	15.0	19.0	4.0	11.0
San Antonio ...	17.0	21.0	4.0	11.0
El Paso	16.0	19.0	4.0	16.0
Texarkana	14 0	20 0	4 0	12 0
Muskogee, Ok.*	17.0	20.0	4.0	13.0
Okla. City* ...	17.0	20.0	4.0	10.0
Tulsa*	15.0	19.0	4.0	10.0
Ft. Smith, Ark.	15.0	17.0	5.0	12.0
Little Rock ...	19.0	23.0	5.0	13.0

*Gasoline tank wagon price to dealers 2 cents under posted tank wagon.

ROCKY MOUNTAIN DISTRICT

Continental Oil Co.

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Denver, Colo...	18.0	21.0	4.0	15.5
Pueblo	18.0	21.0	4.0	15.5
Grand Junction	22.5	25.5	4.0	19.0
Casper, Wyo. ..	21.0	24.0	4.0	14.0
Cheyenne	22.0	25.0	4.0	15.5
Butte, Mont. ..	25.5	28.5	5.0	20.0
Helena	25.5	28.5	5.0	20.0
Salt Lake, Utah	22.0	25.0	5.0	17.0
Albu'que, N. M.	21.0	24.0	5.0	17.0
Boise, Idaho ..	24.5	27.5	4.0	19.0
Twin Falls	24.5	28.5	4.0	19.0

PENNSYLVANIA—DELAWARE AND PART NEW ENGLAND

The Atlantic Refining Co.

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Pittsburgh, Pa..	16.0	*22.0	...	13.0
Philadelphia ..	16.0	*22.0	...	13.0
Scranton	16.0	*22.0	...	13.0
Allentown	16.0	*22.0	...	13.0
Altoona	16.0	*22.0	...	13.0
Erie	13.0	*17.0	...	13.0
Dover, Del. ...	19.0	21.0	3.0	13.0
Wilmington ...	19.0	21.0	3.0	13.0
Springf'd, Mass.	18.0	20.0	5.0	15.0
Worcester	18.0	20.0	2.0	15.0
Boston	18.0	20.0	2.0	15.0
Providence, R.I.	18.0	20.0	2.0	13.0
Hartford, Conn.	18.0	20.0	2.0	14.0
New Haven ...	18.0	20.0	2.0	15.0

*Includes tax of 4.0 cents. Pennsylvania tax is collected by the dealer and paid by him direct to the State. The Atlantic Refining Co. recognizes a 2-cent per gallon discount on gasoline from its posted tank wagon markets on sales to dealers for purposes of resale. The Atlantic Refining Co. also recognizes a maximum discount of 2 cents per gallon on gasoline to commercial accounts under contract for one year.

NEW YORK AND PART OF NEW ENGLAND DISTRICT

Standard Oil Co. (New York)

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Albany, N. Y...	18.0	20.0	2.0	15.0
New York* ...	16.0	18.0	2.0	15.0
Buffalo	18.0	20.0	2.0	14.0
Rochester	18.0	20.0	2.0	14.0
Syracuse	18.0	20.0	2.0	15.0
Boston, Mass...	18.0	20.0	2.0	15.0
Augusta, Me....	20.0	22.0	4.0	15.0
Manch't'r, N.H.	20.0	22.0	4.0	15.0
Burlington, Vt..	19.0	20.0	4.0	15.0

*Prices in steel barrels.

SOUTHERN DISTRICT

Standard Oil Co. (Kentucky)

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Atlanta, Ga. ...	20.0	22.0	4.0	16.5
Augusta	18.0	20.0	4.0	15.5
Macon	21.0	23.0	4.0	16.5
Savannah	20.0	22.0	4.0	15.5
Birm'ham, Ala..	20.0	22.0	4.0	15.0
Mobile	20.0	22.0	4.0	15.0
Montgomery ...	21.0	23.0	4.0	16.5
Clarks'le, Miss..	20.0	22.0	5.0	12.5
Jackson	21.0	23.0	5.0	13.0
Natchez	20.5	22.5	5.0	14.0
Gulfport	22.5	24.5	5.0	14.0
Vicksburg	20.5	22.5	5.0	14.0
Jack'ville, Fla..	22.0	24 0	6.0	14.5
Miami	23.0	25.0	6.0	15.5
Pensacola	23.0	25.0	6.0	14.5
Tampa	22.0	24.0	5.0	14.5
Lexington, Ky..	20.0	22.0	5.0	15.5
Covington	21.0	22.0	5.0	15.5
Louisville	21.0	23.0	5.0	15.0
Ashland	18.0	19.0	5.0	15.5
Catlettsburg ..	18.0	19.0	5.0	15.5

In addition to the state tax of 4 cents on gasoline, Montgomery has city tax of 1 cent on gasoline and one-half cent on kerosene. Kerosene prices in Georgia include 1-cent tax. In Florida, an inspection fee of 0.125 cent; in Alabama, an inspection fee of one-half cent on kerosene and one-fortieth cent on gasoline. Pensacola and Mobile taxes include 1-cent city levy. Gulfport tax includes privilege tax of 2 cents in addition to state tax.

Effective April 2, price to dealers 2 cents under posted tank wagon price.

PACIFIC COAST TERRITORY

Standard Oil Co. (California)

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax of	tank wagon
San Francisco..	20.0	24.0	3.0	15.5
Los Angeles ..	19.5	23.5	3.0	15.5
Reno, Nev.	24.0	26.0	4.0	19.0
Portland, Ore ..	20.5	24 5	3 0	16.5
Seattle, Wash..	20.5	23.5	3.0	16.5
Tacoma	20.5	23.5	3.0	16.5
Spokane	24.5	27.5	3.0	20.5
Phoenix, Ariz..	18.0	22.0	4.0	20.5

NEBRASKA

Standard Oil Co. (Nebraska)

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Omaha	20.25	22.25	4.0	13.25
McCook	21.75	23.75	4.0	14.75
Norfolk	20.75	22.75	4.0	13.75
N. Platte	21.75	23.75	4.0	14.50
Scottsbluff	21.75	23.75	4.0	14.25

ATLANTIC COAST DISTRICT

Standard Oil Co. (New Jersey)

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Atlantic City ..	14.0	18.0	2.0	13.0
Newark, N. J...	16.0	20.0	2.0	13.0
Annapolis, Md..	18.0	22.0	4.0	13.0
Baltimore	18.0	22.0	4.0	12.0
Cumberland ...	18.0	22.0	4.0	13.0
Washington ...	16.0	20.0	2.0	12.0
Danville, Va. ..	19.0	23.0	5.0	12.0
Norfolk	19.0	23.0	5.0	13.0
Petersburg	19.0	23.0	5.0	13.0
Roanoke	18.0	21.0	5.0	13.0
Richmond	19.0	23.0	5.0	13.0
Charles'n, W.Va.	18.0	22.0	4.0	13.0
Keyser	18.0	22.0	4.0	13.0
Parkersburg ...	18.0	22.0	4.0	13.0
Wheeling	18.0	22.0	4.0	13.0
Charlotte, N. C.	19.0	23.0	5.0	13.0
Hickory	19.0	23.0	5.0	13.0
Mt. Airy	19.0	23.0	5.0	13.0
Salisbury	17.0	20.0	5.0	13.0
Charleston, S.C.	20.0	24.0	6.0	13.0
Columbia	20.0	24.0	6.0	13.0

OHIO

Standard Oil Co. (Ohio)

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax of	tank wagon
Ohio points* ..	19.0	20.0	4.0	†13.0

*Dealers and commercial accounts 2 cents under tank wagon.
†Service station price 15 cents.

CENTRAL SOUTH DISTRICT

Standard Oil Co. (Louisiana)

	Gasoline			Kero.
	Tank wagon	Service station	Incl'ds tax of	tank wagon
N. Orleans, La.*	16.5	20.5	5.0	16.0
Baton Rouge ..	16.0	20.0	4.0	14.5
Alexandria† ...	18.0	22.0	5.0	16.0
Lafayette†	18.0	22.0	5.0	14.0
Lake Charles†..	18.5	22.5	5.0	16.0
Shreveport	17.5	21.5	4.0	15.0
Knoxv'le, Tenn.	18.0	22.0	5.0	16.0
Memphis	18.0	22.0	5.0	12.5
Chattanooga ..	16.0	20.0	5.0	14.0
Nashville	19.0	23.0	5.0	16.0
Bristol	19.0	23.0	5.0	14.0
Lt. Rock, Ark..	19.0	23.0	5.0	13.0

*Tax of 5 cents includes city tax of 1 cent. Louisiana Kerosene prices include 1-cent state tax and 1-cent parish tax.
†Includes 1-cent parish tax.

TANK WAGON CHANGES

August 31—Standard Oil Co. of Louisiana reduced kerosene 2 cents in Chattanooga, Tenn., to 14 cents.

NUMEROUS CHANGES IN GULF OFFICIAL FAMILY

PITTSBURGH, Pa., Sept. 14.—The resignation of George S. Davison as vice president and director of the Gulf Oil Corp. and president of the various subsidiary Gulf companies and the advancement of G. R. Nutty and F. A. Leovy to higher offices in the organization also carried with it a number of other important advancements. The official statement of W. L. Mellon, president of the Gulf Oil Corp. is as follows:

At meetings of boards of directors of the Gulf Oil Corp. of Pennsylvania and its subsidiary companies held today the resignation of George S. Davison as a director and vice president of the Gulf Oil Corp., and as a director and president of the subsidiary companies were accepted, effective September 30, 1929.

The following men were elected to the various offices to be vacated by Mr. Davison.

G. R. Nutty and F. A. Leovy were elected vice presidents of the Gulf Oil Corp., and C. B. Buerger was elected a director.

G. R. Nutty was elected president of the Gulf Refining Co. and the Bahama Gulf Oil Co.

F. A. Leovy was elected president of the following companies: Gulf Refining Co. of Louisiana, Gulf Pipe Line Co., Gulf Pipe Line Co. of Oklahoma, Gulf Production Co., Gypsy Oil Co., Mexican Gulf Oil Co., Eastern Gulf Oil Co., Western Gulf Oil Co., South American Gulf Oil Co., Venezuela Gulf Oil Co., Panama Gulf Oil Co., and the Indiana Oil & Gas Co.

Under this arrangement the refining and marketing operations will be within the jurisdiction of Mr. Nutty and the production and pipe line operations within the jurisdiction of Mr. Levoy.

F. A. Leovy succeeds Mr. Davison as director of the Indiana Oil & Gas Co.

H. L. Stone succeeds Mr. Davison as a director of the Gulf Refining Co.

E. C. Bothwell succeeds Mr. Davison as a director of the production and pipe line companies.

W. V. Hartmann succeeds Mr. Davison as a director of the Bahama Gulf Oil Co.

J. E. Nelson succeeds Mr. Davison as a director of the Western Gulf Oil Co.

CRUDE OIL PRICES

(Continued from Page 159)

Sunburst (Montana) (May 23, 1929) ...	1.75
Torchlight	1.65
Hogback (New Mexico)	1.70

Note—Salt Creek, Osage, Cat Creek, Greybull and Hogback posted by Midwest Refining Co., and the remainder by the Ohio Oil Co. Both companies post Grass Creek light and Elk Basin.

SOUTH CENTRAL AND SOUTHWESTERN TEXAS

Luling (May 2)*	$ .90
Mirando (May 20, 1929)†	.90
Salt Flat (May 20, 1929)§	1.35
Rockdale-Minerva (April 15): ..	
Below 28 gravity	1.25
28-38.9 gravity	1.27
39-39.9 gravity	1.29
40 and above	1.31
Thrall‡	...
Callihan (May 15)	1.75
Lytton Springs (Lockhart)	See gravity table
Somerset	See gravity table

*Posted by Magnolia Petroleum Co.
†Magnolia Petroleum Co., Humble Oil & Refining Co., Crown Central Pipe Line Co.
‡Thrall prices same as North Central Texas less 19½ cents per cwt. freight.
§Humble Oil & Refining Co.

EASTERN STATES

Joseph Seep Purchasing Agency
(Effective August 16, 1929)

Penna Grade Oil in New York Transit Lines (New York)	$3.30
Bradford District Oil in National Transit Lines (Pennsylvania)	3.30
Penna Grade Oil in National Transit Lines (Pennsylvania)	3.30
Penna Crude Oil in Southwest Pennsylvania Lines (West Virginia)	3.25
Penna Grade Oil in Eureka Pipe Line Lines (Pennsylvania)	3.15
Penna Grade Oil in Buckeye Pipe Line Lines (Ohio)	2.90
Cabell Grade Oil in Eureka Pipe Line Lines (West Virginia) (May 22, 1929)	1.75
Corning 35-cent Grade Oil in Buckeye Pipe Line Co.'s Line (May 22, 1929).	1.80
Corning 25-cent Grade Oil in Buckeye Pipe Line Co.'s Lines (May 22, 1929).	1.90
Somerset Oil in Cumberland Pipe Line Lines (Kentucky) (May 22, 1929) ...	1.80
Ragland Grade Oil in Cumberland Pipe Line Lines (Kentucky) (Jan. 29) ...	.60

MIDDLE WESTERN STATES

Ohio Oil Co.
(Effective May 21, 1929)

Lima	$1.80
Wooster	1.90
Illinois	1.75
Indiana	1.67
Princeton	1.75
Plymouth	1.28
Waterloo (November 17, 1926)	1.35
Western Kentucky	1.80
Dundee, Mich. (Sept. 17, 1929) ‖	
.... Same as Mid-Continent gravity scale	
Upper and Lower Traverse sands, Mich.‖	
....Same as Mid-Continent gravity scale	
Midland, Mich. (June 3, 1929)*	1.70
Saginaw, Mich., Saginaw Sand (February 10)†	1.80
Saginaw, Mich., Berea Sand (February 10)†	1.70
Cumberland, Clay, Barren, Clinton and Monroe Counties, Kentucky, (March 15)‡	1.50
Oil in line in Stoll Oil Refining Co. in Oil City, Ky. (June 1, 1929)§	1.80
Oil Springs (Canada)¶	2.27
Petrolia (Canada)¶	2.20

*Poted by Pure Oil Co.
†Posted by Sun Oil Co.
‡Posted by Paragon Development Co.
§ osted by Stoll Oil Refining Co.
‖Posted by Imperial Oil Co., Ltd.
¶Posted by Standard of Indiana for boat shipment.

MEXICAN CRUDE

Panuco*	$ .640

*Based on August transactions. Price exclusive of taxes.

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Buying Movement in Oil Securities

Upsurge in Prices for Issues of Leading Companies. Considerable Accumulation of Shares Reported

NEW YORK, Sept. 14.—Marked interest in the oil industry has developed during the past few weeks with a strong upsurge in prices for securities of leading oil companies. A growing realization of the attractive investment possibilities of stocks of the leading oil companies, together with the long pull possibilities held out by many of the large integrated companies, has been responsible for a heavy buying movement in oil stocks which during the week has carried the market value of the common stock issues of four of the larger companies up more than $1,000,000,000 over their market valution at the beginning of the year. Current market values are still more than $900,000,000 over those at the start of the year on the issues mentioned.

Current market value of outstanding common stock in these four companies, as of January 2, peak for the year, and the close September 14, in round figures, follows:

Stock—	Market Value Jan. 2	Peak	Sept. 14
Standard Oil of N. J.	$1,355,464,000	$1,992,765,000	$1,918,510,000
Standard Oil of N. Y.	772,688,000	835,632,000	780,052,000
Royal Dutch	1,085,432,000	1,427,143,000	1,412,067,000
The Texas Corporation	661,221,000	708,011,000	678,459,000
Aggregate market value	$3,874,805,000	$4,963,551,000	$4,789,088,000

While the four companies mentioned have been outstanding features of the heavy trading in oil securities during the past week, stocks of other prominent oil companies have also shared in the general upward move. Standard Oil Co. of New Jersey and Standard Oil Co. of New York have come in for particularly heavy buying on the current move, however. During the week ended September 14, sales of the New Jersey Standard common on the New York Stock Exchange amounted to 1,012,100 shares, while 594,000 shares of Standard of New York were traded during the week. Sales of the Texas Corp. stock for the week were 161,900 shares, while turnover in Royal Dutch was relatively light.

Much of the buying of the four issues mentioned is attributed in market circles to the activities of investment trusts, which have been quite active in Standard of New Jersey recently. The demand for these shares has been so heavy that on September 12, the day on which peak prices for a number of oil securities were reached, sales of the four stocks mentioned above aggregated 1,238,500 shares, which figured out more than 25 per cent of the entire day's trading of all stocks on the New York Stock Exchange.

While buying for the account of investment trusts has undoubtedly been the outstanding feature of the current "bull" movement on petroleum securities, there has also been considerable accumulation of these shares on the part of the investment public. Earning statements of the majority of the leading integrated companies for the first six months of 1929 were unusually favorable, indicating an exceptionally good showing for the entire year. In addition, prices on other classes of securities, which have featured the bull market for the past few years, have risen to the point where in most cases they are far out of line with earning power. There has been a general feeling on the part of both investors and operators for some time past that the oil shares have represented the most attractive class of securities in the present market, and this feeling has crystallized in the present buying movement.

Although there is little doubt but that pool operations on several petroleum issues are now in progress, the market for the general list of oil stocks has gained considerable momentum, and the outlook is generally regarded as most favorable for further appreciation in market value of petroleum securities. Oil stocks have sold at exceptionally low levels during the past few years, largely reflecting the unsatisfactory condition within the industry as a result of the continued overproduction of crude. This phase of the industry has been featured to such an extent that the improved earning power of many of the large units in the industry has been lost sight of.

The turning point in sentiment with respect to the oil securities appears to have been reached with the acquisition of Marland Oil Co., by Morgan interests and the consolidation of this company with Continental Oil Co. These deals marked the entrance, for the first time, of Morgan interests into the American oil industry in a large way, and called attention to the extremely low levels at which the stocks of many sound oil companies were available.

Amerada Corp.

Amerada Corp. declared the regular quarterly dividend of 50 cents, payable October 31 to stock of record October 15.

Paragon Refining

Profit of Paragon Refining Co. for seven months ended July 31, 1929, was $409,520 after interest and depreciation, but before federal taxes. Balance sheet as of July 31, last, shows total assets of $10,694,193 compared with $8,880,318 on December 31, 1928.

British-American

"No action has been taken in the direction of splitting the stock," states A. L. Ellsworth, president of British-American Oil Co., Ltd. A director of the company also says a split-up has not been discussed. There are 1,311,321 shares of no-par capital stock outstanding out of an authorized issue of 1,600,000 shares. Dividends have been 25 cents quarterly, an extra dividend of 25 cents also being paid at the beginning of this year.

Falcon Oil

Subject to approval of its stockholders, Falcon Oil Corp. has negotiated a sale for all the properties of the company to Credito Nacional Peninsular y Americano, of Madrid, Spain.

The properties of Falcon are located in Venezuela. The company has a production of approximately 4,000 bbls. per day, which is derived from a 5 per cent royalty interest in the production of Lago Petroleum Corp. from the maritime zones on the eastern shore of Lake Maracaibo.

The properties sold also include the concessions of Falcon in Venezuela, which amount to approximately 293,000 acres located in the Lake Maracaibo Basin, and over 93,000 acres in the State of Monagas in eastern Venezuela.

Middle States Oil

James E. Sague, chairman of the Middle States Oil Corp. reorganization committee, states that deposits of securities to date under the plan of reorganization have been satisfactory. As the date fixed for deposit of securities was September 15, which was Sunday, deposits will be accepted up to the close of business Monday, September 16.

Hamilton Gas

In connection with reports that Hamilton Gas Co. is considering a merger with other natural gas interests in West Virginia and Kentucky, W. A. Larner, president, declared that the officers know nothing of this proposed merger and that the Hamilton company is not considering merging with any other corporation.

Gulf Oil

Gulf Oil Co. declared regular quarterly dividend of 37½ cents, payable October 1 to stock of record September 20.

Twenty Representative Stocks

The Oil and Gas Journal's weekly average price of 20 representative petroleum stocks listed on the New York Stock Exchange and New York Curb, based on closing quotations for Saturday, was as follows:

April 6	58.26	June 28	56.70
April 13	58.52	July 5	56.52
April 20	58.46	July 12	55.69
April 27	58.34	July 19	56.83
May 4	58.14	July 26	55.62
May 11	59.75	Aug. 3	55.09
May 18	59.30	Aug. 10	54.15
May 25	57.73	Aug. 17	60.32
June 1	56.45	Aug. 24	60.61
June 8	58.37	Aug. 31	60.90
June 14	57.76	Sept. 7	59.16
June 21	56.76	Sept. 14	60.40

International Petroleum

New dividend declaration of International Petroleum Co., Ltd., of 25 cents, while not stated as a quarterly distribution, is regarded as placing this subsidiary of Standard Oil Co. of New Jersey on a $1 annual dividend basis.

West Coast Oil

West Coast Oil Co declared the usual extra dividend of $3 and the regular quarterly dividend of $1.50 on the preferred, both payable October 5 to stock of record September 25.

Shell Union Oil

Offering of $50,000,000 Shell Union Oil Corp. 5 per cent sinking fund debentures, with stock purchase warrants, has

INDEPENDENT OILS ON NEW YORK CURB

Compiled by Francis, Bro. & Co., Kennedy Building, Tulsa, Okla.

1926 High	1926 Low	1927 High	1927 Low	1928 High	1928 Low	1929 High	1929 Low	Par value	Stocks	For week ended September 13 Sales	Open	High	Low	Last	Change
$6.75	.45	2 7/16	.55	1½	.53	.72	¼	$5	Amer. Con. Oilfields	800	¼	¼	¼	¼	— ⅛
..	..	7½	2¾	9½	3¼	8⅝	3½	N.P.	Amer. Maracaibo	1,000	3½	3⅞	3½	3½	...
..	..	2¾	1	4½	2¼	5	1⅞	$10	Argo Oil	300	1⅞	2	1⅞	1⅞	— ⅛
..	..	..	..	..	..	..	..	...	Arkansas Natural Gas	136,600	24¾	24⅞	22⅜	23½	...
85¼	60	40	20½	55	32¾	62	45	N.P.	British American	100	65	65	65	65	—3½
28⅜	9¼	28¼	15½	4½	3⅞	4⅞	2⅝	25c	Carib. Syndicate (new)	1,600	2¾	3	2⅝	2⅝	— ⅛
..	..	58¾	40¼	90⅞	54	54⅜	28½	$20	Cities Service	129,700	52⅝	53¾	53⅛	53¾	+ ½
..	..	95⅜	87	103½	94½	98¾	93½	100	Cities Service, pfd.	900	94¼	95	94¼	95	+ ⅜
..	..	87¼	78⅝	93⅝	87¼	91¼	9	10	Cities Service, pfd. B	200	9	9	9	9	...
3½	1¾	3⅞	1½	3¼	.76	2	⅝	1	Colombia Syndicate	800	¾	¾	¾	¾	— ⅛
..	..	9¾	6¾	8⅞	6¼	11⅛	6⅞	10	Consolidated Royalty	100	5¾	5¾	5¾	5¾	...
16	10	14⅞	9½	17½	9½	13¾	7⅜	N.P.	Creole Syndicate	7,000	8⅞	9	8½	8½	— ½
..	..	3	.50	3¼	.76	2½	1¼	N.P.	Crown Central	1,900	1½	1⅝	1½	1½	...
7⅞	6¾	12	4	33½	3¼	26	11½	N.P.	Darby Petroleum	700	12⅝	12¾	12½	12½	— ½
..	..	2½	74	2¼	1	11	2	N.P.	Derby Oil & Ref.	1,800	7	7⅜	7	7	...
..	..	16¾	4	21⅛	7½	44	20⅞	N.P.	Derby Oil & Ref., pfd.	No sales.					
98	92	118	86¼	165	101⅛	209	142⅛	$25	Gulf Oil Corp.	11,200	199½	203⅞	195½	200	...
$3.00	.83	2½	.80	3⅜	1	2⅞	1⅛	5	Intercontinental Pet.	19,700	1¼	1⅜	1¼	1¼ +	⅛
..	..	2¼	1⅛	3	1¼	3⅝	1⅜	N.P.	Kirby Petroleum	400	2	2	1⅞	1⅞ —	⅛
12¼	5⅜	10⅞	5⅛	9⅜	5⅛	6½	2⅞	25	Leonard Oil & Dev.	1,900	3¾	4⅜	3¾	4 +	⅛
27	20	27¼	20	42⅞	20	38⅞	23¼	N.P.	Lion Oil & Ref. Co.	300	32⅞	33	32	33 +	1⅜
46	30	59⅜	37	69⅛	48½	65¾	32¼	$25	Lone Star Gas	5,400	57⅞	60	51½	57⅛ +	5⅜
2⅞	1	2⅞	.80	1⅞	.50	1¼	⅝	1	Magdalena Syndicate	1,400	½	½	¾	¾ —	⅛
34	12½	52	12	48½	32	38½	20	N.P.	Margay Oil	100	21½	21½	21½	21½	...
8	5½	12⅛	5	8	2⅜	6⅜	3⅜	N.P.	Mexico-Ohio Oil	300	2⅞	2⅞	2⅞	2⅞	...
1¾	1⅛	1½	1	1⅜	.76	1½	¾	$1	Mountain & Gulf	200	⅞	⅞	⅞	⅞	...
26	23	29¼	22¾	28⅞	19½	22⅞	11⅛	10	Mountain Producers	2,500	12½	12¾	11¼	12½ —	¼
6⅝	5	5⅞	4⅝	5⅝	4¼	5	3	5	New Bradford	200	3¼	3¼	3¼	3¼	...
..	..	16	9¼	11⅞	7¼	9⅜	5½	1	New Mex. & Ariz.	500	5⅞	5⅞	5⅜	5⅞	...
..	..	12¾	9½	14¼	8½	18½	8¾	N.P.	North Central Texas	300	13	13¼	12¾	13¼ +	¼
10⅛	5⅞	9¾	3¼	6	2⅛	3½	⅞	N.P.	Pandem	1,500	1	1¼	⅞	⅞ —	¼
12⅛	11¾	12⅛	7	15⅝	8½	10¼	5⅛	N.P.	Pantapec Oil	2,200	5¾	6⅜	5½	5½ +	⅛
22¾	12	13½	5⅛	7⅜	4⅞	7⅜	4⅜	N.P.	Pennok Oil	No sales.					
17	8½	24⅜	7	18	4⅞	16	10	25	Red Bank Oil	No sales.					
30¼	12	15½	3½	12⅞	4¼	8½	4½	N.P.	Reiter-Foster	1,300	4½	4¾	4½	4½ —	⅛
7	4½	7	4½	12	4⅛	11	5	N.P.	Ryan Consolidated	1,700	5½	8	5½	7¼ +	1½
10	7⅛	8	5¼	7¼	5½	5⅞	2	$10	Salt Creek Cons.	1,600	2⅝	2⅝	2½	2⅝	...
35	24⅛	35½	27¼	35	23⅛	25⅞	13	10	Salt Creek Prod.	2,600	14½	14⅜	13⅝	14 —	⅝
6⅞	1¼	7	1¼	3½	1	2½	1⅛	5	Savoy Oil	No sales.					
92	63½	92	63½	93¼	75	145	82	100	Transcontinental, pfd.	No sales.					
8	4½	7⅜	4¼	9⅛	4¾	6½	3	5	Venezuelan Petrol	2,800	3¾	3⅞	3½	3¾	...
8⅛	5½	8	4¾	8¼	4⅞	9⅛	4⅛	$1	Woodley Petroleum	300	4½	4½	4½	4½ +	¼
6½	6	6	1¾	8⅜	2⅛	..	..	25	Y Oil & Gas (new)	No sales.					

TRANSACTIONS IN OIL SHARES ON NEW YORK STOCK EXCHANGE

Quotations Compiled by Francis, Bro. & Co., Members of New York Stock Exchange. Kennedy Building, Tulsa, Okla

1926 High	1926 Low	1927 High	1927 Low	1928 High	1928 Low	1929 High	1929 Low		Listed capital	Par value	Div. rate	Last paid	Stocks—	For week ended September 14 Sales	Open	High	Low	Last	Change
32⅞	24¼	37⅝	27⅝	43⅞	27⅛	42⅝	22½	(sh)	922.075	N.P.	50cQ	July 31, 29	Amerada Corp.	23,100	27¾	30½	27	29⅛	—1⅝
74	39⅞	82⅛	35⅛	85	51⅛	64⅜	31	(sh)	209,180	N.P.	.....	.....	American Republics Corp.	2,400	37⅛	40⅜	36	36	—2
60	44⅜	50¼	35	53⅜	37½	47¼	40½		$57,260,300	$25	50cQ	Sept. 30, 29	Associated Oil	9,000	45⅛	45⅛	45	45	— ⅛
128⅜	97	131⅜	104	66⅜	50	77⅞	53½		50,000,000	25	25cQ*	Sept. 16, 29	Atlantic Refining	61,000	64½	66¾	63⅜	64⅛	—1
33½	23½	35½	20¾	53	20	49⅛	33⅛		35,194,000	25	50cQ	Aug. 6, 29	Barnsdall Corp.	28,700	36¾	38½	36	37½	— ½
..	..	..	..	..	..	..	..		.....	....	.....	.....	Continental Oil						
94½	50	96¾	65	94⅞	68	94¾	61		20,785,400	100		.....	General Asphalt	2,000	85⅛	88½	84	86	+ ¾
72	50¼	175¾	60⅛	167	79	109	68½		25,000,000	100	.....	.....	Houston Oil	6,400	75¼	80½	74	78	+ 3½
34	19⅝	32¾	17⅝	38⅜	21¾	39⅜	29⅛	(sh)	959,457	N.P.	50cQ	July 31, 29	Independent Oil & Gas ...	7,800	31⅛	32½	31	31⅝	+ ¼
12¾	7½	12⅛	7⅝	39⅝	9	53	29		8,203,080	$10	.....	May 31, 24	Indian Refining	38,600	47¼	48½	45⅛	45⅞	— 2
25⅞	16½	37¾	20½	39⅛	27⅜	38⅜	26	(sh)	3,992,122	N.P.	.....	May 1, 27	Lago Oil & Transport ...	600	32½	32½	31	31	—1½
19⅞	12	18⅛	10	19¾	9⅜	18	10⅜	(sh)	1,237,078	N.P.	.....	.....	Louisiana Oil Refining ..	4,800	11⅝	12	11¼	12	+ ½
28	16½	22¾	12	25½	12½	18½	12	(sh)	330,000	N.P.	.....	.....	Maracaibo Oil	1,300	14⅜	15¼	14⅜	14⅜	...
13¾	6	9¼	3	73	4⅝	69⅜	32	(sh)	945,939	N.P.	.....	Dec. 15, 20	Mexican Seaboard	23,400	34⅛	35¼	32	33	—2
37	20½	39⅜	25½	44½	25¼	39⅞	30½	(sh)	1,357,461	N.P.	50cQ	Aug. 15, 29	Mid-Continent Petroleum	18,800	33⅜	34¾	33	34	+ ½
2½	½	3¾	1⅝	7⅜	2⅜	5⅛	1⅞		24,298,850	10	.....	July 1, 23	Middle States	30,400	2	2¼	1⅞	2	— ⅛
76½	56⅛	65⅞	40⅛	54⅞	38¼	69	40¼		48,807,400	$50	.....	Oct. 20, 27	Pan American P. & T. ...	5,200	63¾	67	63½	65⅛	+ ⅛
78⅜	56⅞	66⅜	40¼	58⅞	37⅜	69¼	40½		121,097,900	50	.....	Nov. 15, 24	Pan American P. & T. B.	83,100	64	67⅛	63½	65¾	+ 1
46	30	37⅞	16¾	28⅜	15½	18½	13⅜	(sh)	400,000	N.P.	.....	Jan. 30, 27	Pan American Western B	146,000	14⅜	14⅜	13⅞	14⅛	— ¼
32	4½	18⅞	8	21¾	11½	15¼	7⅛	(sh)	198,770	N.P.	.....	.....	Panhandle P. & R.	700	9	10	8	8	—1
99⅜	51	83	54	108	70	76	47½		$2,935,200	$100	.....	July 2, 23	Panhandle P. & R. pfd. ..	No sales.					
57⅜	40	60¼	36¼	53⅞	35¼	47	35	(sh)	2,406,796	N.P.	37½cQ	Oct. 2, 29	Phillips Petroleum	14,200	36⅝	38⅞	36⅜	37½	+ ¼
..	..	1⅛	½	5¼	½	3⅜	1½		$29,622,925	$25	.....	.....	Pierce Oil Corp.	2,900	1¾	2⅛	1¾	1⅞	— ⅛
7	2¼	5½	2½	7	3½	5⅞	4	(sh)	2,500,000	N.P.	.....	.....	Pierce Petroleum	3,100	4⅝	4⅞	4½	4½	...
60¼	48	55½	45⅝	68	46	65⅝	50¾		60,000,000	25	50cQ*	Sept. 30, 29	Prairie Oil & Gas	6,400	54	58	54	54¾	+ ½
137½	122½	190	130¾	280	172	65	53⅝		$101,250,000	$25	75cQ*	Sept. 30, 29	Prairie Pipe	3,300	60⅛	62¾	60	61	+ 1
20¾	11	33⅞	16¾	29⅞	16	25⅞	11½		$37,450,850	$50	.....	Sept. 15, 23	Producers & Refiners	800	15	15⅞	15	15	...
41¾	30¾	50	36⅞	49⅝	41	46¾	34		2,845,350	50	37½cQ	May 1, 25	Producers & Refiners pfd.	24,000	37	42⅞	37	40	+ 3
31	25¼	33½	25	31⅝	19	30⅜	23¼		75,959,350	25	.....	Sept. 2, 29	Pure Oil Co.	30,500	26¼	27½	25¾	26½	+ ⅜
27½	22	28⅝	25⅜	56	23	49⅝	38⅞		47,025,000	$25	50cQ*	Sept. 15, 28	Richfield Oil	10,300	41	42½	40¾	41⅛	— ¾
57⅜	47⅜	54½	44¼	64	44⅝	61½	49⅞	(sh)	611,303	13.40	.....	Aug. 13, 29	Royal Dutch, N. Y., sh. .	179,400	56⅝	61½	55½	60⅞	+ 3⅝
48⅝	40½	47⅞	41⅜	57½	40⅝	55⅜	43⅜	(sh)	£30,000,000	£1	$1.45	July 23, 29	Shell Transport & T.	400	37	49½	37	40½	+ 3⅜
31	24	31⅜	24⅝	39¼	23¼	31⅜	25	(sh)	20,000,000	N.P.	35cQ	Sept. 30, 29	Shell Union Oil	55,800	27½	28¾	27	27¾	— ¼
25⅝	15⅛	25⅜	14¼	27¼	18⅛	40⅛	18⅛		$8,357,000	$10	40cQ	Sept. 14, 29	Simms Petroleum	11,800	35⅛	36⅞	34⅝	36½	...
24⅞	15¾	22⅜	15	46¾	17⅜	45	31½	(sh)	4,501,915	N.P.	50cQ*	Oct. 15, 29	Sinclair Consolidated	138,600	25½	38⅛	35⅜	36¾	+ 1⅝
99½	90	104½	97	110	102½	111	107		$16,604,600	$100	$2Q	Aug. 15, 29	Sinclair Consolidated pfd.	200	109	109	109	109	...
37⅛	26⅝	37⅜	24⅛	42⅝	25	46½	32⅞		27,396,590	25	50cQ	Sept. 16, 29	Skelly Oil Co.	44,500	42⅜	43¾	40	43⅛	— ⅝
63⅝	51½	60¾	50⅝	80	53	81⅞	64	(sh)	12,594,098	N.P.	65½cQ	Sept. 16, 29	Standard Oil of Cal.	64,300	75¼	79⅛	75⅛	76¾	+ ⅞
46⅜	37½	41⅜	35¼	59⅜	37⅜	80½	48		$611,120,700	$25	25cQ*	Sept. 16, 29	Standard Oil of N. J. .	975,200	72⅜	80½	70¾	80½	+ 8¾
47¼	30⅜	34½	29¾	44¼	28¾	48⅛	37⅝		427,973,275	25	40cQ	Sept. 16, 29	Standard Oil of N. Y	514,800	43⅞	48⅛	42⅜	46	+ 2⅝
41¾	30⅛	34⅞	30	77	31½	83¾	57	(sh)	1,206,073	N.P.	25cQ	Sept. 16, 29	Sun Oil	9,900	72⅞	83¾	72⅞	83¾	+ 9⅞
..	..	..	..	..	..	24	17		2,400,000	N.P.	.....	Dec. 20, 20	Superior Oil Corp.	37,600	19¼	31	16⅝	21	+ 2¾
58	48	58	45	74¾	50	71⅞	57¼		$211,076,650	$25	75cQ	Oct. 1, 29	The Texas Corporation ..	157,900	68⅞	71⅞	67⅜	69⅜	+ 1
19½	12	18⅞	12	26⅝	12⅛	23⅞	15⅛		8,380,340	10	.....	Jan. 3, 28	Texas Pacific Coal & Oil .	8,900	16¼	17⅝	16¼	16¼	— ⅜
39¼	27	29⅛	19	41½	19⅝	40	27⅛	(sh)	2,168,410	N.P.	20cQ	June 29, 29	Tide Water Oil Co.	700	33¾	35	33¾	34¾	+ 1½
103	87⅛	90⅛	85	100⅛	86	97½	90		$20,705,200	$100	65½cQ	Aug. 15, 29	Tide Wat. O. Co. 5% pfd.	2,600	92⅞	95⅞	92	95½	+ 3½
27	20⅞	19¼	15⅜	25	14⅜	23½	17½	(sh)	4,796,158	N.P.		Aug. 1, 27	Tide Water Associated ...	27,600	19	20¼	19	19⅝	+ ¼
5½	3	10⅜	3¾	14¾	7¼	15¼	9	(sh)	3,742,029	N.P.	.....	.....	Transcontinental Oil	110,800	13⅞	13⅞	12¾	13⅜	— ¼
58⅜	37¼	56½	39⅝	58	42⅜	54½	45½		$94,798,100	$25	50cQ	Aug. 10, 29	Union Oil of California ..	21,600	52	53⅜	50⅝	51½	— ½
120⅜	84¼	127½	94	128⅛	110	160	121⅞		31,061,200	100	$1.25Q	Sept. 3, 29	Union Tank Car Co.	5,700	158	163¾	155	161	+ 1¼
30⅛	23½	34½	24½	44⅞	26	42⅞	28½	(sh)	356,000	N.P.	50cQ	July 2, 29	Warner Quinlan	6,000	31⅛	31⅝	29½	30	—1⅛
29¾	25⅛	27½	20	38	20⅛	38	30¼	(sh)	490,000	N.P.	50cQ	July 20, 29	White Eagle Oil & Refg. .	11,300	33	36¼	33	35⅞	+ 2⅝
..	..	..	..	..	..	29¾	17		.....	....	.....	.....	Wilcox Oil & Gas	2,900	18	18¾	17½	18¼	+ ¼

*Also extras. †Ex-dividend.

STANDARD OIL STOCKS ON NEW YORK CURB

1926 High	1926 Low	1927 High	1927 Low	1928 High	1928 Low	1929 High	1929 Low		Listed capital	Par value	Div. rate	Last paid	Stocks—	For week ended September 13 Sales	Open	High	Low	Last	Change
21	16	21⅝	17⅞	22⅜	14⅞	18	14¼		£4,126,460	£1	.....	June 6, 28	Anglo-American Oil	1,300	15	15	15	15	...
...	....	3¾	¾	5	1¼	2½	1⅛	(sh)	500,000	N.P.	.....	.....	Atlantic Lobos	200	1¼	1¼	1¼	1¼	...
76	65	69	50	56½	44½	46½	26		1,000,000	25	$18.A.	Oct. 15, 28	Borne Scrymser	100	28	28	28	28	...
59½	42	60	45	76	53	74¼	58⅜		10,000,000	50	$1Q	Dec. 15, 28	Buckeye Pipe Line	100	68	68	68	68	...
82½	65	126	76½	161	117	210	140¼		3,000,000	25½	$1Q	Dec. 28, 28	Chesebrough Mfg.	300	190	199¾	190	199¾	— ¼
25⅞	17½	22⅝	16¼	23	16	29	16⅞		36,057,840	10	.....	Dec. 15, 27	Continental Oil	1,400	19½	20	18	19⅞	+ ⅛
137	102	137	89	114	67	95	60		1,500,000	50	$1A	Dec. 15, 28	Cumberland Pipe Line ..	No sales.					
63¾	43	68½	47	88	64⅛	70⅛	55½		5,000,000	100	$1Q	Nov. 1, 28	Eureka Pipe Line	50	55	55	55	55	...
32½	9⅞	13½	3½	13	4¼	6⅝	5		16,000,000	100	.....	June 30, 25	Galena Signal Oil	100	7	7	7	7	...
68½	52	68½	54	114¾	59¼	128	89⅝		73,117,577	25	30cQ*	Jan. 1, 29	Humble Oil & Refining ...	5,900	120¾	124	118¾	121	+ 1
144½	125½	182	123¾	290½	176½	340½	285		20,000	100	10%S.A.	Dec. 15, 28	Illinois Pipe Line	450	307	307	300¼	302	—5
..	..	64¾	37¾	104	56¾	41	26⅝	(sh)	6,458,267	N.P.	25cQ	Dec. 1, 28	Imperial of Canada	11,500	38½	39¾	37¼	38¾	— ½
72½	58	94½	61	91⅞	74⅜	28⅜	26¾		$5,000,000	$50	.....	Feb. 15, 29	Indiana Pipe Line (new).	700	29	29⅝	28½	29⅝	+ 1⅛
35½	28¾	39	28¼	55	35	30⅜	22½	(sh)	7,193,144	N.P.	37½c	Nov. 30, 28	International Pet. (new) .	23,300	27½	28¾	26¾	28¾	+ 1
20¾	12½	24	13½	32⅜	19⅜	25⅞	21⅛		$6,363,350	12.50	25c	Dec. 15, 28	National Transit Co.	600	22	22	21⅛	21⅛	— ⅝
51½	27¾	44½	31¼	75	38½	85	70		5,000,000	100	.....	July 15, 26	New York Transit	No sales.					
80½	64	100	70	69	56¼	63	52¾		2,000,000	50	$38.A.	Jan. 2, 29	Northern Pipe Line	150	53	56¾	53	56¾	...
67¾	55¾	67⅞	52	84	58½	77⅜	64⅛		60,000,000	25	50cQ*	Dec. 15, 28	Ohio Oil Co.	15,800	76	79¾	75⅝	79	+ 3
24¾	15	39	12	84	28	44½	23⅛		10,000,000	25	$1.25	Dec. 15, 28	Penn Mex. Fuel	100	30	30	30	30	...
220	84½	201½	175½	220	167	219½	200		4,000,000	100	$58.A.	Dec. 20, 28	Solar Refining (old)						
....	....	....	....	....	....	50	37¾		.....	....	.....	.....	Solar Refining (new)	300	37½	38	37½	37⅞	...
74½	61½	27¼	15½	19	15	22½	13		1,000,000	10	$2	Dec. 1, 27	Southern Pipe Line	100	20	20	20	20	...
50	34½	41½	35	71⅞	36¾	69⅞	62		2,000,000	25	50cQ	Dec. 31, 28	South Penn Oil (old)						
....	....	....	....	....	....	60¼	40¾		.....	....	.....	.....	South Penn Oil (new) ...	2,000	50	54	49	53	+ 5
56	47½	83	55½	102	70	70	62¾		3,500,000	100	$1Q	Oct. 1, 28	Southwest Pa. Pipe Lines.	No sales.					
70½	60½	81½	64⅝	95⅞	70⅞	63	51½	(sh)	18,000,000	25	62½Q	Sept. 16, 26	Standard Oil of Indiana ..	82,800	55½	58¼	55	56¼	+ 8¼
38½	16½	20⅞	14⅝	37¾	15	26	18		8,000,000	25	.....	June 16, 24	Standard Oil of Kansas ..	1,410	24¼	25⅜	23⅝	24⅞	+ 1⅝
134⅜	108	130	111½	179¾	122¼	45½	35½		17,012,559	10	$1Q	Dec. 31, 28	Standard Oil of Kentucky.	2,100	36⅝	37⅞	36	37⅜	+ ⅜
51⅞	42	49½	40	54⅞	39⅞	50¼	45½		4,559,850	25	63cQ	Dec. 20, 28	Standard Oil of Nebraska.	500	48⅛	49	48	48	...
372	288	87½	72	134	71	129	110¼		14,000,000	25	62½cQ	Jan. 2, 29	Standard Oil of Ohio	1,300	116	119	114	119	+ 1
21	15	21	14½	23½	16	18	15		861,000	25	.....	Nov. 1, 19	Swan Finch Co.	No sales.					
109⅜	90¼	....	....	111	72	133¾	105½		125,619,000	25	75cQ	Dec. 20, 28	Vacuum Oil Co.	2,400	121⅛	126⅞	121⅛	124½	+ 1

*Also extras.

been sold. The issue will bear a 5 per cent interest coupon and will mature in 1949. In the latter part of June this year the company made a public offering of $40,000,000 of 5½ per cent cumulative convertible preferred at $98 a share, and on January 10 this year $30,000 000 was received from the issue of 3,000,000 shares of common stock, which had been offered to stockholders late in 1928 for subscription at $10 a share in the ratio of three-tenths share for each share held. Thus, with the present offering, the company will have done financing aggregating $120,000,000. Not including the present offering, the company at a recent date had outstanding $48,274,500 of its 5 per cent sinking fund debentures, due May 1, 1947; $29,304,000 of Shell Pipe Line Corp. 5 per cent sinking fund debentures, due November 1, 1952; $40.000,000 of 5½ per cent cumulative convertible preferred of $100 par and 13,053,709 shares of no-par

common, carried on the balance sheet at $233,131,509.

United Carbon

United Carbon Co. has offered holders of the voting trust certificates for common stock of record October 4 the right to subscribe, at $50 a share, for additional voting trust certificates for common stock, in the ratio of one new share for every six shares of common held. The subscription privilege expires October 28.

Based on the number of common shares now outstanding, the new issue will be 40,125 shares, and in the event all holders of the outstanding stock purchase warrants exercise them prior to the record date for rights and thus become stockholders of record on that date, the new issue will be 56,262 shares.

The purpose of the offering is to provide funds for expansion of the company's business, to reimburse the treasury of the company for capital expenditures, including redemption on October 1, 1929, of all first mortgage bonds due April 1, 1931, and to enable the company to make certain adjustments in its capital structure.

White Eagle

White Eagle Oil & Refining Co. declared regular quarterly dividend of 50 cents a share payable October 21, 1929, to stockholders of record September 30, 1929.

Pacific Gas

The California Railroad Commission has authorized the issuance by the Pacific Gas & Electric Co. of the two classes of rights announced last week. One class offers stockholders the right to subscribe for one new share of common stock for each 10 held at $25 a share; and the other is in the same proportion at $55 a share. Both classes of rights are to stockholders of record September 25 and will expire October 21. Payment for new stock under both classes of rights may be made in installments up to January 1, 1930.

Pacific Gas & Electric Co reports for 12 months ended June 30, 1929, net income of $15,008.514 after federal taxes, interest, depreciation, etc., equivalent after preferred dividends, to $3.23 a share (par $25) on 3,167,829 shares outstanding on June 30, last, and $3.52 a share on 2,912.582 average number of shares outstanding during the year. This compares with $12,609,637 or $2.48 a share and $2.70 a share respectively, in the preceding 12 months, based on same share basis.

ROCKY MOUNTAIN AREA

(Continued from Page 148)

with a discovery on the Bartram Dome in Colorado. In addition to this development, the Mountain Fuel Supply Co.'s No. 1 Tucker, C NW SE, Section 18-13-99, Alkali Creek structure, one of the highs in the Hiawatha area, is testing a gas sand at 2,734 feet. There is a considerable flow of gas, but no estimate of its capacity has yet been made. This also, is a new area. This company is starting two new wells in its No. 1 Union Pacific, Section 13-19-104, Baxter Basin, and No. 1 Cappers, SW NE, Section 2-19-194. The Mountain Fuel Supply Co.'s No. 1 Hay, NE NE, Section 26-17-104, South Baxter Basin, is drilling at 2,300 feet, and its No. 1 Murphy, NE NE, Section 26-17-104, is mudding behind the 10-inch at 3,010 feet to kill a show of gas to drill deeper. The Hidden Treasure Oil Co.'s No. 1, SE cor. Section 32-21-103, North Baxter Basin, is drilling at 750 feet, and its No. 1, NE cor. NW, Section 11-20-104, has rig up. R. W. Wood's No. 1, Section 7-28-92, on Sheep Creek, is spudding for a test.

In Lincoln County, the Midwest Refining Co.'s No. 1, Little Grays River, SE SE, Section 25-37-117, is drilling at 1,546 feet in white sand and gravel, and Reeves Aylmore's No. 1 Higgins, NE NW, Section 7-21-119, is drilling at 919 feet in sand.

In Uinta County, the Ragan Petroleum Co.'s No. 1, Section 13-15n-118, 18 miles east of Evanston, is reported to have a show of oil in the Bear River at a little below 1,000 feet. Minton and others' No. 1, SW SW, Section 8-18-116, Cumberland district, is reported abandoned at 1,300 feet in the lower Bear River, and E. L. Doheny, and others' No. 1 Wooten SE NE, Section 26-14-119, spudded and shut down. P. L. Cooper's No. 1, NE Section 19-18-117, La Salle district, is drilling at 1,285 feet, and the Park City Oil & Gas Co.'s No. 1 Christensen, NE cor., Section 6-15-113, is drilling at 1,214 feet. E. L. Doheny, and others' No. 1, C SE, Section 6-14-118, Aspen structure is drilling at 2,578 feet and carrying the 4¾-inch. A new operation is W. S. Adams' No. 1, Section 18-15-120, Yellow Creek district, drilling at 180 feet. The California Co.'s No. 1 Union Pacific NE NW, Section 7-17-116. Muddy Creek, is bottomed at 4,285 feet with a hole full of water and is rigging to run the 6⅝-inch.

MONTANA

The Fifty Six Petroleum Co. brought in the big well of the week in its No. 5 Jarrett on Section 29-35 2, Sunburst field which started off at 200 barrels from the Ellis sand at 1,500 feet. This is the fourth good well this company has found during the summer in Sunburst Field and a well close to the new strike was started at once and is expected to make a completion before bad weather shuts down the field.

The O Boy Oil Co., has a good producer on the Steward lease, Section 25-35-2, in the Ellis sand at 1,527 feet. The well made 48 barrels daily. The Marine Oil Co. has a gas well on the Morton lease, Section 24-34-2, that will make around 3,000 000 feet daily and this will be used on the Great Falls gas line.

The California Co. has a 10 barrel pumper on the Newman lease on Section 22-35-2 in the Ellis sand at 1,480 feet and the Northern Natural Gas Co. has a new gas producer that will make 5,000,000 from the Sunburst sand on the Kohnen lease, Section 33-25-2. This gas well is 1,375 feet and will be used in supplying the Great Falls line.

The Magic Oil Co. plugged back to a stray sand found at 935 feet in its well on Section 15-34-1 on the Burwash lease and shot. The well is now going to make a small pumper that will eventually pay out. It is good for about 15 barrels.

The Deloraine Oil Co. has a 15-barrel well on Section 28-35-2, in the stray sand at 1,375 feet, and the Hannah Porter Oil Co. found a gas well good for 5,000,000 feet on the Benjamin lease on Section 13-33-2.

The Texas Pacific found a fair producer estimated at 25 barrels on Section 29-35-2, in the Ellis sand at 1,525 feet, and this company will endeavor to complete another test before winter.

Potlatch Deep Test

The Potlatch deep test in Sunburst is again having a fishing job at 4,672 feet and the Shell's deep test is also fishing at 4,620 feet. Both wells found oil showings in the deeper formations and the recent strike of a new producing horizon in the Madison lime in northern Wyoming, opening an entirely new producing horizon, has awakened much interest in the deeper drilling of wells in Montana. The northern Wyoming strike is good for 500 barrels daily and this insures commercial sized wells in work in Montana is showing more wells the Madison lime.

In the Bannatyne Field, the Sterling Oil Co. has a new producer of small size on the Elliott lease. The well will do about 10 barrels, according to estimates.

The latter part of the season for field work in Montana is showing more wells starting than at at any time in the year. Wildcats are spudding in many places over the State and expect to complete before the winter weather stops the work. The second test of the Ohio Oil Co. on the Sand Creek Dome is nearing completion and should be in soon. The first well was abandoned after it developed a large gas flow, because of a bad hole and a string of tools in the bottom of the well.

The Carter Oil Co.'s deep well on the Sixshooter Dome is drilling at 1,300 feet and expects to drill to around 4,000 feet unless commercial production is found above.

ROCKY MOUNTAIN FIELDS
Daily Average Pipe Line Runs Week Ending September 14

WYOMING

Salt Creek	33,650
Frannie	30
Big Muddy	2,270
Oregon Basin	5,220
Byron	.....
Dutton	40
Elk Basin	740
Ferris	50
Grass Creek	2,180
Greybull	10
Hamilton	1,000
La Barge	2,170
Lance Creek	190
Lost Soldier	4,010
Osage	640
Poison Spider	990
Rock River	2,340
Rex Lake	90
Lander	540
Simpson Ridge	40
Teapot Dome	30
Mule Creek	590
Pilot Butte	190
Total	57,010

MONTANA

Cat Creek	1,370
Kevin-Sunburst	6,940
Pondera	3,420
Lake Basin	60
Total	11,790

COLORADO

Moffat	1,003
Fort Collins	2,095
Florence	721
Iles	1,635
Tow Creek	413
Boulder	25
Rangely	100
Total	5,992

NEW MEXICO

Artesia	842
Cap Rock (Maljamar)	415
Hogback	240
Rattlesnake	1,784
Table Mesa	114
Total	3,395
Grand total	78,187

WEST TEXAS FIELDS

(Continued from Page 73)

ators discussing the question of extending proration in the Settles and Roberts Pools. As no definite word can be given at this writing it is questionable as to just what will come out of the meeting. Some of the operators are in favor of lifting proration, and there is a possibility that the wells in Howard and Glasscock will be allowed to produce their maximum instead of being pinched by proration.

WEST TEXAS PRODUCTION
Week ending September 14

County—	Wells	Prod.
Crane County	317	38,051
Crockett County	43	1,728
Ector County	3	....
Fisher County	7	1,335
Glasscock and Howard	382	36,233
Jones County	73	2,905
Loving	13	1,113
Mitchell	142	2,544
Pecos County	327	134,144
Reagan County	244	17,541
Runnels	3	25
Scurry County	5	30
Upton County	239	8,830
Ward County	11	1,548
Winkler County	600	128,175
Total this week	2,409	374,202
Total last week	2,410	374,661
Difference	1	459

PIPE LINE RUNS
August 28 to September 4
Runs Through Trunk Lines

	Last period
Atlantic P. L. Co., Port Arthur, Tex.	38,500
Gulf P. L. Co. to Coast via Ranger, Tex.	25,500
Humble P. L. Co., Comyn, Tex.	12,702
Humble P. L. Co., Ingleside, Tex.	49,125
Illinois P. L. Co. via Del Rio, Tex.	40,000
Magnolia P. L. Co. to De Leon, Tex.	13,416
Pasotex P. L. Co., El Paso, Tex.	8,826
Shell P. L. Co., Headdon, Okla.	41,513
Shell P. L. Co., Houston, Tex.	18,062
The Texas Company, Houston, Tex.	25,810
Total	273,454

Tank Car Shipments

Reagan County Co., Kemper, Tex.	91
Thomas & Brann, Grant City	100
Orient Co., McCamey, Tex.	112
American Pet. Co., Pyote, Tex.	4,850
Southern Crude O. P. Co., Texas	10,457
Total	15,610

Runs to West Texas Refineries

Amarillo Prod. Co., Pyote, Tex.	Off
Bluebonnett Ref. Co., Wickett, Tex.	2,059
Burford Ref. Co., Pecos, Tex.	4,826
Col-Tex Ref. Co., Colorado, Tex.	7,000
Cosden Ref. Co., Big Spring, Tex.	4,053
Great Western Ref. Co., Big Spring, Tex.	3,765
Humble Oil & Ref. Co., McCamey, Tex.	5,354
Midland Ref. Co., Midland, Tex.	1,013
Tonkawa Ref. Co., Pyote, Tex.	986
Valley Ref. Co., Pyote, Tex.	Off
Big Spring Ref. Co., Big Spring, Tex.	1,918
Richardson Ref. Co., Big Spring, Tex.	4,250
Total	35,254

Summary

	Previous week	Last period
Pipe line runs through trunk lines	293,473	273,454
Tank car shipments	17,593	15,610
Runs to West Texas refineries	49,625	35,254
Total daily distribution	360,691	324,318
Total daily production	373,007	368,793
Daily average from storage	12,316	44,475

DAILY AVERAGE PRODUCTION BY LEASES
Winkler County
Week Ended September 10

Company, farm, sections, block—	Wells	Prod.
Amerada Pet. Corp:		
Cowden, 3, B-12	2	58
Atlantic O. P. Co.:		
Hendricks-A, 34, B-5	2	1,348
Hendricks-B, 44, 26	5	795
Hendricks-D, 29, B-5	8	881
Hendricks-E, 41, B-5	6	1,259
Hendricks-G, 46, 26	7	53
Hendricks-H, 30, B-5	1	Off
Atlantic O. P. Co.:		
Hendricks-F, 40, 26	13	1,296
Bankers Prod. Co.:		
Hendricks, 30, B-5	1	8
Bolin, V. T.:		
Brown-Altman, 4, B-5	1	4
California Co.:		
Hendricks, 29, B-5	7	832
Cranfill & Reynolds:		
Hendricks, 28, B-5	2	112
Hendricks-B, 35, B-5	1	106
Hendricks-C, 33, 26	2	216
Hendricks-E, 33, 26	2	328
Cranfill & Texon:		
Hutchings, 47, 26	1	67
Culberson Brothers:		
Hendricks, 40, B-5	1	64
Eastland Oil Co.:		
Hendricks, 35, B-5	2	344
Hendricks-B, 46, 26	1	178
Gulf Production Co.:		
Hendricks-A 34 B-5	13	4,569
Hendricks-B 45 26	11	3,786
Hendricks-C 40 B-5	6	497
Hendricks 44 26	3	803
Cowden 3 B-12	2	166
Humble Oil & Refining Co.:		
Hendricks-A 34 B-5	17	4,700
Hendricks-B 29 B-5	6	1,299
Hendricks-C 32 26	8	601
Hendricks-D 39 26	7	313
Hendricks-C 10 B-12	12	8,220
Walton 48 26	1	114
Independent Oil & Gas Co.:		
Hendricks-A 34 B-5	7	1,236
Howe-B 44 26	3	199
McCabe 36 B-5	2	246
Hendricks 42 B-5	1	Off
Vardeman-B 41 B-5	7	269
Magnolia Petroleum Co.:		
Hendricks 29 B-5	8	445
Marland Oil Co.:		
Hendricks 33 26	4	750
Hendricks-A 29 26	2	105
Hendricks-B 34 26	2	156
May Prod. Co.:		
Hendricks 34 26	1	15
American Maracaibo:		
Hendricks-A 28 B-5	1	9
Hendricks-B 28 B-5	1	61
Mining & Engineering:		
Hendricks 10 B-12	1	Off
Murchison & Cranfill:		
Hendricks-A 35 B-5	3	525
Hendricks-B 35 B-5	3	706
Hendricks-C 35 B-5	1	12
Hendricks-H 35 B-5	1	900
Hendricks-I 34 26	2	23
Prairie Oil & Gas Co.:		
Hendricks 40 26	6	1,334
Cowden 3 B-12	6	3,480
Pure Oil Co., (Lion):		
Hendricks-A 41 B-5	11	2,003
Hendricks-B 34 B-5	13	3,774
Hendricks-C 45 26	14	6,250
Hendricks-D 44 26	1	122
Republic Prod. Co.:		
Hendricks-A 45 26	12	2,022
Hendricks-B 41 B-5	5	151
Shell Petroleum Corp.:		
Hendricks-A 45 26	5	542
Hendricks-B 29 B-5	5	1,463
Hendricks-C 29 B-5	7	671
Hendricks-D 41 B-5	3	173
Hendricks-E 40 B-5	3	444
Hendricks-F 46 26	6	297
Hendricks-G 39 26	1	77
Shell-Texas Company:		
Cowden-A 3 B-12	6	1,961
Hendricks 45 26	6	3,259
Hendricks-A 29 B-5	7	1,869
Hendricks-B 40 26	3	435
Hendricks-C 40 26	6	1,673
Hendricks-D 40 26	6	254
Hendricks-E 39 26	2	244
Skelly Oil Co.:		
Hendricks 40 26	12	5,537
Hendricks-B 10 B-12	2	18
Hendricks-C 39 26	1	110
Southern Crude O. P. Co.:		
T-67 Hendricks-A 42 B-5	3	134
T-67 Hendricks-3-A 4 B-12	4	305
T-67 Hendricks-B 44 26	5	445
T-67 Hendricks-3-B 33 26	4	263
T-67 Hendricks-C 33 B-5	5	625
T-67 Hendricks-2-D 28 26	5	1,261
T-67 Hendricks-E 42 B-5	4	134
T-67 Hendricks-F 33 B-5	5	622
T-68 Hendricks-3-A 35 B-5	3	116

(Continued on Next Page)

Company, farm— Location	Wells	Prod.
T-68 Hendricks-B 46 26	2	186
T-88 Hendricks-A 44 26	6	870
T-88 Hendricks-B 4 B-12	4	335
T-88 Hendricks-C 28 B-5	8	1,269
T-88 Hendricks-D 4 B-12	6	3,224
T-88 Hendricks-F 28 B-5	6	1,412
T-88 Hendricks-I 30 B-5	7	578
T-88 Hendricks-J 30 B-5	5	425
T-88 Hendricks-K 41 26	7	1,152
T-88 Hendricks-L 4 B-12	4	651
T-88 Hendricks-M 33 26	35	16,633
T-88 Hendricks-N 28 26	7	723
T-88 Hendricks-O 28 26	4	816
T-88 Hendricks-P 28 26	2	353
T-88 Hendricks-Q 27 26	2	894
T-88 Hendricks-R 27 26	3	652
T-88 Hendricks-S 34 26	4	1,463
T-88 Hendricks-T 34 26	7	1,086
T-88 Hendricks-U 41 26	10	1,307
T-88 Hendricks-V 39 26	1	69
T-88 Hendricks-W 5 B-12	1	306
T-88 Hendricks-CX 21 26	4	1,676
T-89 Hendricks-A 35 B-5	3	210
T-89 Hendricks-B 35 B-5	2	332
T-89 Hendricks-C 35 B-5	3	690
T-89 Hendricks-D 35 B-5	1	186
T-89 Hendricks-E 40 B-5	3	160
T-89 Hendricks-F 40 B-5	2	194
T-89 Hendricks-H 46 26	2	170
T-89 Hendricks-I 10 B-12	2	138
T-89 Hendricks-J 9 B-12	8	1,801
T-89 Hendricks-L 15 B-12	1	389
T-90 Hutchings 47 26	1	195
Texon Oil & Land:		
Hendricks-A 41 B-5	6	631
Hendricks-B 45 26	6	1,642
Winkler O. P. Co.:		
Hendricks 33 26	1	Off
TOTAL HENDRICKS POOL	570	122,484
LECK AREA		
Atlantic Kessler & Logan:		
Leck 3 74	2	358
Amerada Petroleum Corp.:		
Leck 3 74	2	308
Empire Gas & Fuel Co.:		
Daugherty 3 74	3	156
Magnolia Petroleum Co.:		
Scarborough 1 C-22	2	229
Gulf Prod. Co.:		
Scarborough 1 C-22	1	69
Daugherty 3 74	1	673
Shell-Llano Oil Co.:		
Daugherty 1 C-22	4	209
Shell-Danciger:		
Daugherty 3 74	2	107
Skelly Oil Co.:		
Daugherty 22 16	3	1,745
Tidal Oil Co.:		
Scarborough 1 C-22	1	170
Prairie Oil & Gas Co.:		
Leck 16 74	1	368
Daugherty 3 74	1	171
Scarborough 1 C-22	1	57
Warner-Quinlan:		
Leck 3 74	1	420
TOTAL LECK POOL	25	5,040
O'Brien Pool		
Marland Oil Co.:		
Morton 10 B-12	2	182
Wentz Oil Corp.:		
Morton 10 B-12	1	180
Simms Oil Co.:		
Sealy 50 F	1	25
Richardson and others:		
Stockton 50 F	1	106
TOTAL O'BRIEN POOL	5	493
TOTAL WINKLER COUNTY	602	128,017

PECOS COUNTY

Week Ending September 10

Company and lease—	Wells	Prod.
M. H. Black:		
Fee	1	15
California Co.:		
Yates—Lease 1	18	11,399
Smith—Lease 1, Sec. 37	3	528
Smith—Lease 1, Sec. 23	7	2,111
Smith—Lease 1, Sec. 21	3	1,175
Smith—Lease 2	2	110
Smith—Lease 3	12	2,679
Smith	1	15
Tippett—Lease 1	1	28
Cosby Drilling Co.:		
Smith	1	235
Dorn & McGee:		
Pecos Valley	1	19
Grayburg Oil Co.:		
Pecos River bed	6	29
Salvage		475
Gulf Prod. Co.:		
All leases	39	17,610
Humble Oil & Ref. Co.:		
Smith-A	10	2,399
Smith-B	7	1,082
Kirby Pet. Co.:		
Tippett	2	60
Kirby Pet. & Edson:		
Tippett	1	240
Marland Oil Co.:		
Yates-A	6	570
Yates-A, salvage		5,162
Mazda & Savoy:		
Smith	3	660
McCarty Oil Co.:		
Gray	1	10
Bennett	1	15
McMan Oil & Gas Co.:		
Smith-A	1	1,822
Smith-B	4	1,522
Smith-C	7	637
Tippett	2	266
Richardson	1	183
McMan & Marland:		
Yates	17	6,498
Mid-Kansas & Transcontinental:		
Yates-A	27	16,772
Yates-B	27	7,434
Yates-C	11	7,284
Yates-D	7	9,129
Yates-E	2	780
Yates-F	4	876
Yates-G	3	1,296
Yates-H	10	7,036
Smith	5	2,179
Smith	18	4,981
J. D. O'Mara:		
Bultz	1	35
Pecos Valley Oil Co.:		
Fee, Sec. 22, Blk. 26	2	62
Phillips Pet. Corp.:		
Monroe	2	180
Ramsey	2	635
Smith	2	660
Plymouth Oil Co.:		
Perry	1	30
Red Bank Oil Co.:		
Smith	5	504
Rowan-Tong:		
McDonald	1	150
Shell Pet. Co.:		
Tippett	11	4,353
Smith	11	1,493
Smith-B	1	650
Smith-D	4	851
Smith-E	1	18
Bower-University-C	1	226
Simms Oil Co.:		
Smith	7	8,080
Skelly Oil Co.:		
Tippett	1	85
Taylor-Link:		
University	2	433
Total	327	133,766

WEST TEXAS COMPLETIONS

Week ending September 14

Coke County

Cates & Dennis' No. 2 Mimms, located 2,340 feet from south and east lines of Section 8, Block W, location was abandoned.

Fisher County

Bickerstaff & Simons' No. 1 McWhorter, located 150 feet from north and 2,640 feet from west of Section 295, Block 2, was dry and abandoned at 2,000 feet.

Garza County

Emerald Oil Co.'s No. 1 Bargsley, located 330 feet from south and 2,310 feet from west of Section 135, Block 5, topped the pay at 2,453 feet, was drilled to a total depth of 2,551 feet, shot with 100 quarts at 2,510-35 feet, shot again with 60 quarts at 2,445-60 feet and had an initial production of 3 bbls.

Howard County

Merrick & Bristow's No. 11 Hooks, located 625 feet from north and 2,015 feet from west of Section 140, Block 29, had an initial production of 8 bbls. at 1,841-1,948 feet. Moody Oil Co.'s No. 20-B, located 1,750 feet from north and 2,310 feet from the west of Section 137, Block 29, was dry and abandoned at 1,400 feet. Ward Oil Co.'s No. 11 Roberts, located 2,430 feet from south and 760 feet from west of Section 137, Block 29, had an initial production of 225 bbls. at 1,324-91 feet. Amerada Petroleum Corp.'s No. 12-D Roberts, topped the pay at 1,297 feet, was drilled to a total depth of 1,340 feet, plugged back to 1,308 feet, shot with 3 quarts at 1,297-1,307 feet and had an initial production of 35 bbls.

Jones County

Clark and others' No. 1 Miller was dry and abandoned at 2,480 feet. Their No. 1 Newman topped the pay at 2,525 feet, was drilled to a total depth of 2,550 feet and had an initial production of 8 bbls. oil and 50 bbls. water.

Pecos County

Phillips Petroleum Corp.'s No. 3 Smith topped the pay at 1,683 feet, was drilled to a total depth of 1,775 feet and had an initial production of 50 bbls. hourly. Shell Petroleum Corp.'s No. 1-C University had an initial production of 60 bbls. oil at 935-40 feet and was drilled to a total depth of 961 feet. Gulf Production Co.'s No. 24 Yates, Section 3, Runnels County School Land, had an initial production of 420 bbls. at 1,270-1,391 feet.

Marland Production Co.'s No. 1 University, located 2,310 feet from north and 330 feet from east of Section 10, Block 17, was completed as a gas well making 2,500,000 feet of gas at 1,851-53 feet. McMan Oil & Gas Co.'s No. 4 Richardson, located 370 feet from north and 800 feet from west of SW cor., Section 108, had an initial production of 10 bbls. at 1,308-74 feet. Moncrief's No. 1 University, located 330 feet from north and 2,310 feet from west of Section 13, Block 18, had an initial production of 40 bbls. at 1,535-1,717 feet. Phillips Petroleum Corp.'s No. 3 Smith, located 330 feet from south and west of Section 24, Block 194, had an initial production of 50 bbls. at 1,580-1,775 feet. Shell Petroleum Corp.'s No. 1-B University, located 1,650 feet from south and 330 feet from west of Section 30, Block 16, was dry and abandoned at 1,663 feet. Tidal Oil Co.'s No. 3 University, located 2,310 feet from south and 1,650 feet from east of Section 17, Block 20, was dry and abandoned at 1,877 feet.

Taylor County

Root Drilling Co.'s No. 1 Martin was dry and abandoned at a total depth of 3,165 feet.

Winkler County

Humble Oil & Refining Co.'s No. 13 Hendricks topped the pay at 2,870 feet, was drilled to a total depth of 2,890 feet, had show of gas at 2,621-31 feet, gas blew out at 2,880 feet and had an initial production of 8,500 bbls. in 24 hours. Its No. 14 Hendricks topped the pay at 2,789 feet, was drilled to a total depth of 2,864 feet and had an initial production of 226 bbls. fluid hourly, 7 per cent water.

SPIRITED DEMAND FOR NATURAL GASOLINE

(Continued from Page 36)

still quoted at a relatively low level. Fuel oil is expected by many to advance at least 10 cents, while others say the weight of the large stocks will hold fuel prices to their present level for several months more and point to the possibility of a crude drop in forcing prices even lower.

Gasolines and Naphthas

U. S. Motor gasoline could be purchased in Oklahoma at prices ranging from 6½ to 7¾ cents. The larger refiners continued to maintain quotations at the higher figure but report a slow movement of their material. A decidedly improved condition was obtained in the past week with respect to the higher gravity gasolines. These were being demanded by the jobbers in the northern states in anticipation of cooler weather, which in turn calls for a more volatile fuel.

Natural Gasoline

Jobbers and Gulf Coast refiners came into the natural gasoline market during the past week and removed all material freely offered. Contracts were also made covering shipments to be made over the balance of the month and next month assure the natural gasoline market a firmer basis for future spot trading. Jobbers have been purchasing appreciable quantities for blending in their tanks and some new business is coming from Oklahoma refiners who are having to blend up weathered stocks of refinery gasoline in decreasing their inventories for the coming winter season. The greater share of the natural gasoline going to the jobbers was A grade while that being applied on the purchase made by the Gulf Coast refiners was the AA grade. There was very little spot demand for the lower grades.

Kerosene

While many refiners refused to quote under last week's market level for kerosene, there was a very noticeable weakening in that market. North Texas kerosene was freely offered below 5 cents and while Oklahoma refiners contended the quality offered at these prices was not as good, they felt the effect of these prices in the fewer sales of their own product.

Distillates and Gas Oil

Both distillates and gas oil promise to advance as the early Fall demand increases. The heavier grades of furnace oil are being favored in the demand at this time. Refiners have not generally entered into their customary fall and winter distillate production schedule which has caused a temporary shortage of the material. Advances of one-eighth to one-fourth cent were made in all grades of distillate and gas oil.

Fuel Oil

The fuel oil market has shown a consistent improvement over the past two weeks and the whole level of prices stands a favorable chance of advancing in the immediate future. This improvement is most noticeable in the higher gravity fuels, but has been sufficient to cause a better feeling regarding the entire fuel oil market. There is a very large demand for the high gravity fuels for household and small burner use. This trend toward the use of heavier fuels has been apparent for several years and with the perfection of many household burners for the use of these heavier fuels, this year will probably bring a great increase in the demand for these oils.

Lubricating Oil and Wax

Except for the slight weakening of the cylinder stock market there was little change in the price list for lubricating oils. Wax prices remained unchanged but a better feeling existed in the East regarding the future of the market and this was reflected in Oklahoma by the lesser offerings of the material on the spot market.

OIL MEN ARE ADMITTED TO CANADA AFTER HALT

CHATHAM, Ontario, Sept. 14.—A recent order in council of the Dominion government prohibiting the importation of contract labor into Canada resulted recently in a party of oil men being temporarily halted at Sweetgrass, Mont. Among those refused entry were R. F. Baker of New York, assistant to the president of The Texas Company; H. A. Stewart of Denver, chief geologist of the Rocky Mountain division; A. R. Wilson of Denver, production superintendent; Martin Norman of Denver, drilling superintendent of the Hudson's Bay-Marland Oil Co.; R. B. Deschner of the Continental Supply Co. and C. H. Brown of the Goodman Manufacturing Co. Following representations to Ottawa, admission was promptly granted, and the party proceeded to Calgary.

The new regulation, designed primarily to apply to industrial workers, was apparently not intended to affect oil-field workers, and while the formality of application to the Department of Immigration at Ottawa will likely be required, no further difficulty is anticipated. Several parties of drillers for whom application was made were admitted to Canada without demur. The correct procedure is to make written application to the minister of immigration at Ottawa for admission, when the latter will issue a letter, on presentation of which to the immigration officer of the border, the applicant will be duly admitted.

WORK ON OIL WELL'S NEW OFFICE IS BEGUN

OIL CITY, Pa., Sept. 16—Work has started on the erection of a three-story addition to the office building of the Oil Well Supply Co., here. The Oil City Chamber of Commerce has been active in plans for this project, which involves transferring the headquarters of the company from Pittsburgh to Oil City.

Sixty new families are expected in Oil City the next few months when office employes are brought here from Pittsburgh. Plans have been made to erect the building in two units, the contract for the first unit having been let and no time set for the completion of the other unit. The complete cost of the first unit is placed at approximately $80 000.

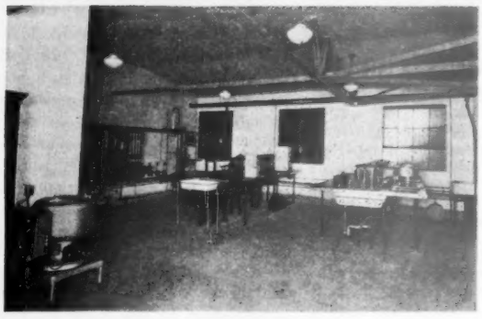
PETER P. MILLIKIN'S DEATH

Peter Pryor Millikin, veteran drilling contractor and more recently lease broker, died Friday, September 13, in Tulsa after a very short illness of heart disease. He was 69 years old. Mr. Millikin came to Oklahoma over 25 years ago and took part in the development of the Cleveland Pool, and later he went to Robinson, Ill., where he remained through the busy years of that and other Illinois pools. He returned to Oklahoma in 1913 and lived in Tulsa thereafter until his death. Mr. Millikin was born in Franklin, Pa.

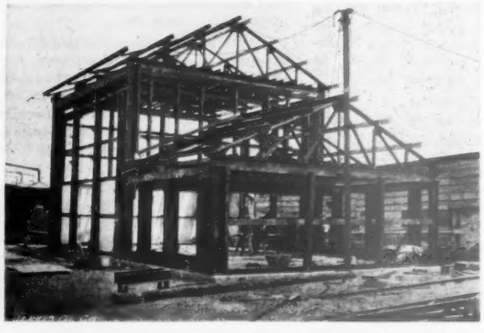
Deceased is survived by Mrs. Millikin, one daughter, Mrs. George S. Bo'e of Tulsa, and two brothers, W. H. Millikin of Bowling Green, Ohio, and Coston Millikin of Salina, Kans.

The funeral and burial were conducted on Monday in Tulsa.

COMPLE



Accurate laboratory investigation is fundamental to successful design.



Typical of careful engineering, ample strength and practical design.

Special equipment developed and designed for extreme conditions and service.

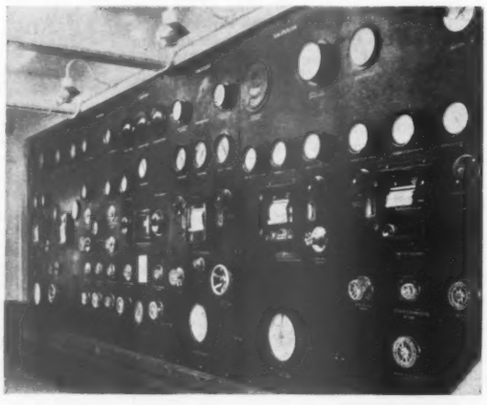
Erection crews under experienced supervision assure construction in accord with specifications.

COMPLETENESS—the indispensable foundation of successful work, whether it be for a single unit or a complete plant. Not just slipping by specifications, but adding those things which vision and foresightedness show to make it a bigger and better job, giving the best that years of experience and ability are capable of giving.

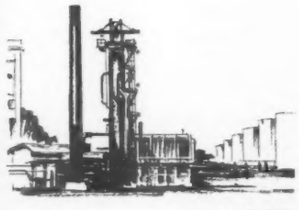
LABORATORY INVESTIGATION
ENGINEERING DESIGN AND CO-ORDINATION
CONSTRUCTION
OPERATION
BY SMITH REFINERY SPECIALISTS

SMITH

Centralized control insures economical operation.



District Offices
New York City, N. Y.
Oil City, Pa.

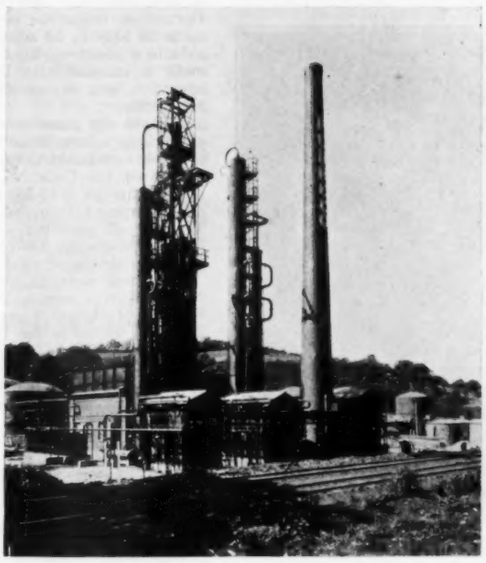


TENESS

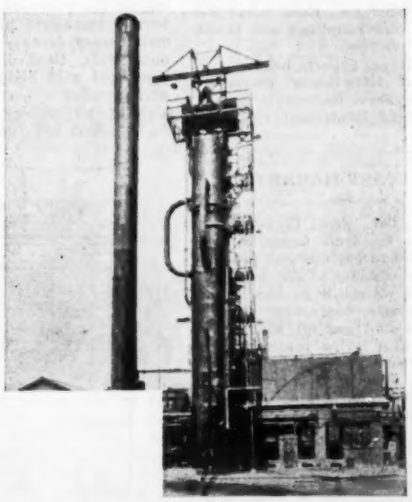
Completeness—is always outstanding in all Smith Engineering jobs. Completeness — because they are surrounded with a complete staff of trained specialists with which to solve the most difficult refinery problem and see it through to a precise finish.

Every detail is carefully supervised by men who have made refinery problems a life study. Couple this experience with the determination of these men to give the best they have on every job and you will readily see why completeness has been an outstanding accomplishment in all of their profit producing refinery units and plants.

The far reaching resources of this company have placed the trained services of this group of men at your disposal. Let us work out your next refinery problem.



Topping, rerun and vacuum units designed and constructed for Pennsylvania Refining Company.



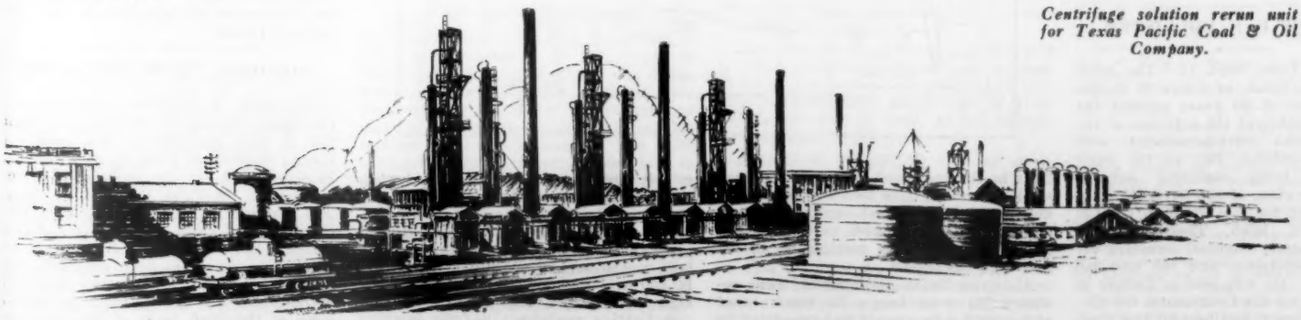
Centrifuge solution rerun unit for Texas Pacific Coal & Oil Company.

ENGINEERING COMPANY

(OF PENN.)

107 W. Linwood, Kansas City, Mo.

District Offices
Los Angeles, Calif.
Tulsa, Okla.



ROWSEY MANAGER OF SMITH SEPARATOR CO.

L. B. Rowsey, formerly assistant to the vice president and assistant sales manager of the Smith Separator Co., Tulsa, has been made manager of the company, with which he has been associated for the last six years in the accounting, purchasing and sales departments. The company manufactures the Smith oil and gas separator and distributes other oil-field products.

District offices are conducted in Fort Worth, Houston, Midland and Pampa, Texas; Shreveport, La.; Wichita, Kan.; Casper, Wyo.; and Los Angeles, Calif.

Besides its oil and gas separator the

L. B. Rowsey

company manufactures the Ever-Ready protector (tubing catcher) and the Waters water gauge cock and it distributes in the Mid-Continent the products of Fisher Governor Co., Reed Air Filter Co., Victaulic pipe couplings and Homestead refinery valves.

It has a large export business in separators and Ever-Ready protectors. The company's export business is handled by the Oil Field Equipment Co., New York.

GULF COAST MARKETS

HOUSTON, Tex., Sept. 17.—Although generally firm the Gulf Coast refinery market on fuel and gas oils and pale and red oils at the opening of the week was generally at a standstill so far as any definite trends were concerned. The demand for fuel and gas oil was chiefly local with tanker rates continuing too high for coastwise movement but apparently there is little of this material offered and sellers are holding steady on quotations. There continues a good movement of pale and red oils from most refiners and at present low prices the market is holding but the demand lacks the activity necessary to instill a firmer tone in the situation.

DEATH OF U. S. HOLLISTER

DENVER, Colo., Sept. 17.—The death in Hollywood, Calif., of Uriah S. Hollister at the age of 90 years marked the passing of another of the veterans of the oil industry who were associated with John D. Rockefeller, Sr., in the early days. After being mustered out of service at the close of the Civil War, he took an agency for the Standard Oil Co. at Marquette, Mich. There he met George D. Rogers, financial secretary for the elder Rockefeller, and the two became friends. He was sent to Denver in 1894 to build up the Continental Oil Co., then in its infancy, and became vice president. He retired in 1912. Mr. Hollister was born at Dryden, Tompkins County, New York, September 11, 1838.

SIX PRODUCERS AT MUSKEGON, TWO IN MOUNT PLEASANT FIELD

By Special Correspondent

MUSKEGON, Mich., Sept. 14.—New locations in the Muskegon Field last week kept almost even with new completions which numbered one a day with six oil producers, one dry gasser and no dusters. There were six new locations.

The surprise of the week was the Section Ten Oil Co.'s No. 1 J. J. McDermott on the Muskegon River flats, SW SW, Section 10-10-16, Muskegon Township, which made 68 bbls. in the first two hours after being drilled only a few feet into the upper Traverse. Opened on two other occasions the well made 38 bbls. in 30 minutes and then 31 bbls. in 4 minutes. Lack of field tankage made it impossible to keep the well in operation long enough to get a fair 24-hour test.

The one dry gasser completed is on the river flats where it is anticipated considerable new production may be expected. The Reed Oil Co.'s No. 2 Lester Hill, NE SE, Section 8-10-16, Muskegon Township, deepened from an original upper Traverse oil producer. Gas was struck in the Dundee at 1,991-93 feet and the flow was measured at 4,000,000 feet.

The Reed company also completed its No. 4 Torrent estate, SE SW, Section 8-10-16, Muskegon Township, for about 200 bbls. initial in the Dundee at 2,018-20 feet.

One of the best producers was completed by Harold L. Fleeger, of the Fleeger-Ohlson Association, Chicago, on the Stanley Daniloff lease, SW SE, Section 5-10-16, Muskegon Township. Its initial production was 300 bbls. of oil and 1,000,000 feet of gas at 2,052 feet.

Two wells on the northeast edge of the field came in for 100 and 200 bbls. initial, respectively, in the Dundee pay sands. The smaller was the Simplex Oil Co.'s No. 1 James Dow, NW SE, Section 5-10-16, Muskegon Township, and the larger Fred J. Estes and others' No. 3 Ellis I. Page, NE NE SE, Section 6-10-16, Muskegon Township.

Laketon Township

The one completion in Laketon Township was the Sterling Oil Corp.'s No. 7 Mathilda Shuler, NE NW, Section 12-10-17, making 50 bbls. initial in the Dundee.

Two of the new locations are in Muskegon Township and four in Laketon Township. The Two in Muskegon Township are. Reliable Oil & Gas Co.'s No. 1 Coleman-Valentine, SE SW NW, Section 5-10-16, and the Paragon Oil Co.'s No. 2 John Dornbush, NW NE SW, Section 8-10-16. The locations in Laketon Township are, Johnson Oil Refining Co.'s No. 16 John Thompson, SE NW, Section 12-10-17; Nelson & Witt, Inc.'s No. 3-A George A. Fenner, NW SE, Section 11-10-17; No. 4-A George A. Fenner, SW SE, Section 11-10-17, and No. 3-B George A. Fenner, SE SE, Section 11-10-17.

Continental Gas & Oil Co.'s No. 18, SE SW, Section 22-10-16, Muskegon Township, had a show of oil low at 1,790 feet and was shot. It is doubtful if it will make commercial production at this depth. Muskegon Oil Corp.'s No. 2 A. Heinz, NE NE, Section 8-10-16, failed to make commercial production in the lower Traverse at 1,915 feet and is drilling to the Dundee. Johnson Oil Refining Co.'s No. 15 John Thompson, SE NW, Section 12-10-17, made 15 bbls. in the upper Traverse at 1,670 feet but is being drilled to the Dundee.

Continental Gas & Oil Co.'s No. 11 on the Continental Motors Corp.'s property, NE NW, Section 22-10-16, has been abandoned.

Mount Pleasant Field

Two wells, one making 350 bbls. and the other good for 500 bbls. initial were added to the Mount Pleasant, Mich., Field. The Pure Oil Co.'s No. 3 Fox, NE NE, Section 13-14-3, Chippewa Township, Isabella County, made 350 bbls. after striking the Dundee at 3,590 feet, 26 feet in the lime. The Ohio Producing & Refining Co.'s No. 2 Bailey-Hall, or Indian, NW NE, Section 13-14-3, also Chippewa Township, made 500 bbls. in the Dundee.

Five new locations were announced, Dixie Oil Co.'s No. 1 W. H. Coates, SE SW NE, Section 2-14-3, Chippewa Township, Isabella County; Geneva Oil Co.'s No. 1 William Henry, SW SW, Section 35-2-15, Midland County; two in Gratiot County, Samuel Bacon's No. 1 Gibbs, NE SE, Section 1-10n-1w, and the Maeston Oil Co.'s No. 1 Cornwell estate, SW SW, Section 27-12-1, and Sun Oil Co.'s No. 1 E. A. Miller, NW NE, Section 31-22-5e, Iosco County.

Ottawa County

Enough gas to burn issued from the Wright Oil Co.'s No. 1 Joseph Kluting, SW NW, Section 10-8-13, Wright Township, Ottawa County. It is drilling at about 4,530 feet and is one of the deepest wells drilled in Michigan. Royal R. Miller's No. 1 Paul Sako, NE NW, Section 27-7-16, Grand Haven Township, the other deep test well in Ottawa County, is shut down at 4,050 feet for repairs.

C. L. Bullock, contractor, has started work on the Dixie Oil Co.'s No. 1 G. H. Telder, NE SW SW, Section 35-6-15, Olive Township, Ottawa County. The Shell Petroleum Corp. is reported drilling a structure test in Robinson Township, Ottawa County, on the Waverley Road.

Kent County

A permit for a new Kent County wildcat has been issued to H. E. Lang and M. W. Shriver, located in the center of Section 36-5n-10w, on the Schondelmayer lease. Two other Kent County wildcats have been inactive for some time. Paul Schulte's No. 1 Thomas Blanchard, SW SW, Section 30-10-10, Nelson Township, near Cedar Springs, at 2,650 feet, and Mid-Continent Development Co.'s No. 1 George Easley, NW NW, Section 19-6-11, Paris Township, the Home Acres well at 2,300 feet.

Newaygo County

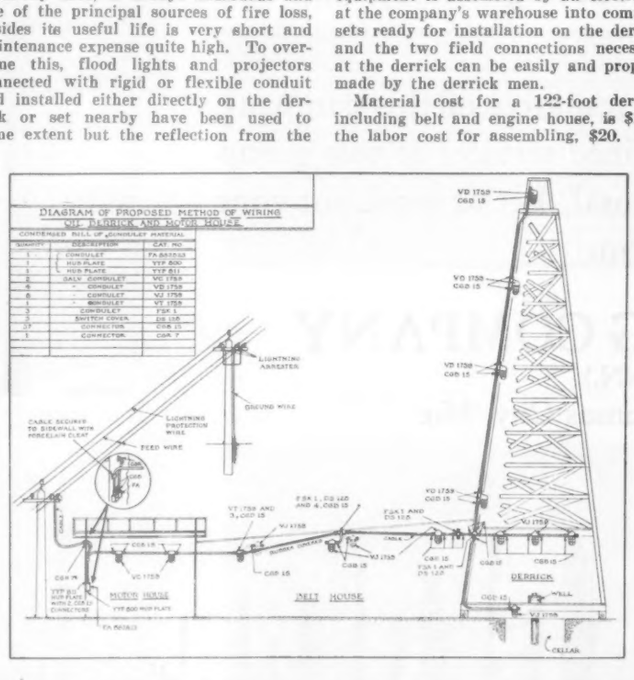
Two deep tests in Newaygo County have resumed operations. Newaygo Oil & Gas Co.'s No. 1 A. J. Bates, NE SE, Section 12-13-13, Sherman Township, at 3,507 feet and Uhl and Sarver's No. 1 David E. Uhl, NW SE, Section 20-13-12, Everett Township, at 3,210 feet.

A pocket of gas was struck in one of the two new wildcat wells starting in Sullivan Township, Muskegon County. The gas was struck in the Marshall formation at 415 feet. It is F. J. Johnston's No. 1 Johnston-Marston-Janicke, SW NW Section 1-9-15.

DERRICK LIGHTING EQUIPMENT

By Walter H. Meier
Engineer, Atlantic Oil Producing Co., Dallas, Tex.

Satisfactory lighting of derricks has been a problem for years and various methods have been tried with varying success. Open wire electric lighting, as generally used, is always hazardous and one of the principal sources of fire loss, besides its useful life is very short and maintenance expense quite high. To overcome this, flood lights and projectors connected with rigid or flexible conduit and installed either directly on the derrick or set nearby have been used to some extent but the reflection from the



light in the operator's eyes and the deep shadows created have been very objectionable. And further, such equipment is not sufficiently flexible and to be properly installed requires the services of an experienced electrician.

A derrick lighting equipment, using ordinary 60 watt lamps in vapor proof globes with wire guards and connected by a flexible rubber covered cable, is shown on the attached drawings. This has been used by one company for several years, and so far not a single rig so equipped has been lost by fire caused by defective electrical wiring nor has any money been spent for electrical maintenance. The equipment is assembled by an electrician at the company's warehouse into complete sets ready for installation on the derrick, and the two field connections necessary at the derrick can be easily and properly made by the derrick men.

Material cost for a 122-foot derrick, including belt and engine house, is $180; the labor cost for assembling, $20. The complete set is entirely salvable and when removed from a derrick is kept intact until needed again. The original sets, installed in the fall of 1925, are still in perfect condition and quite a number have been moved several times. Approximately 150 sets are now in use. Relatively high in first cost, this vapor proof derrick lighting equipment is fully justified by the elimination of fire hazard and maintenance cost and its high salvage value and better light.

CONSIDER CRUDE SITUATION

The board of directors of the Kansas-Oklahoma Division of the Mid-Continent Oil & Gas Association will hold a special meeting at 2:00 p. m. Thursday, September 19, at the association headquarters in the Tulsa Building, in Tulsa. The purpose of the meeting is to discuss the production situation in the two states. Secretary Harry Smith said no definite program has been arranged, but it is expected that a proration plan will be discussed and efforts made to curtail some of the flush areas of the Seminole district. The pipe line companies are trying to limit the oil production to the market requirements.

Rich Oil Sand Close To Surface Requires Separation Process

By Tolbert R. Ingram

DENVER, Colo., Sept. 13.—The West Texas area described in a recent issue of The Oil and Gas Journal in which saturated oil sands are found practically at the surface and in which the crude is produced by trenching methods, compares in many ways with certain areas in eastern Utah. There is, however, one important difference. In the West Texas area described only the free oil in the sand that flows into the trenches is recovered while in the Utah deposits the method proposed is the employment of a process for the separation of the oil from the sand so as to obtain practically a 100 per cent oil recovery.

The Utah area is in Grand County a few miles west of the Colorado boundary and 30 miles north of Westwater, a station on the Denver & Rio Grande Western Railroad. The altitude is 8,000 feet while at Westwater it is 4,400 feet. The drop between the two points means that the oil can be flowed out through a pipe line by gravity. The railroad parallels the Colorado River where there is an abundance of water for refining purposes and transportation facilities.

T. E. Williams, of Denver, in 1918 and 1919 located 32 claims containing 4,750 acres in which the carbon-bothum oil sand deposit is found. These were taken up on unsurveyed land under the old mining laws in effect prior to the enactment of the general mineral leasing act of February 25, 1920, and the Government withdrawal act of May, 1929, and is, therefore, exempt from any government royalty or restrictions under the two acts named. Mr. Williams and associates have expended approximately $100,000 in doing the annual assessment work, amounting to $100 on each claim, making surveys, obtaining geological reports, and working out methods and processes for recovering the oil. Patent on the land has not been applied for and title comes by quitclaim deeds from the original locators. Mr. Williams is now engaged in an effort to enlist capital with which to construct a separation plant, build a pipe line and erect a refinery.

The land containing the sand deposit lays practically horizontal with no dips, and the method proposed for recovering the sand is by mining and steam shovel operations. The deposit lies in one body and approximately 25 per cent of the area has no overburden whatever while part of it has an overburden of only 5 to 10 feet and the remainder 10 to 25 feet overburden. Mr. Williams states that there has been developed a practical process for separating the oil from the sand which is economical and which will enable a 100 per cent recovery of oil ready for pipe line transportation. The estimates made by the engineers place the cost of the oil at 65 to 75 cents per barrel including cost of mining and treatment on the property. The average recovery is placed at one barrel of oil per ton of sand. The oil is described as being identical with well oil and subject to refining the same as any well oil. Tests of the crude show 15 per cent paraffin base and 10 per cent asphalt. The gravity is 30 to 33 degrees Baume scale with less than 1 per cent sulphur. The oil makes an extra high grade of lubricating stock.

Mr. Williams has had reports made on the property by several oil and mining engineers and all agree, he says, that the deposit contains between 600,000,000 and 750,000,000 bbls. (The sand is said to be 215 feet thick, with some barren streaks.) In the center of the area is approximately 600 acres of supersaturated sand without any overburden which is estimated to contain 300,000,000 bbls. of oil in which the sand can be handled by steam shovel methods. The estimated cost of a 1,000-bbl. separation plant, pipe line to the railroad and refinery to treat that quantity of oil is $650,000. A market for that quantity is reported to be available in the territory. While the deposit is located in the same general area as the Colorado-Utah shale beds, the two are in no way related as one involves the conversion of the content of oil shales into oil while the other requires only the recovery of the oil that is already in the sands. It is claimed that the oil from the sand can be produced for 60 per cent of the cost of oil from shale.

ECONOMICAL CONCRETE FOR OIL FIELD USES

By Walter H. Meier

Engineer, Atlantic Oil Producing Co., Dallas, Tex.

Concrete is now generally used by most all oil field operators for foundations because of its firmness and durability. Apparently it is not generally known or accepted that satisfactory concrete can be made from almost any aggregate available to the job if properly proportioned with cement and water and the whole sufficiently mixed. Concrete having a compressive strength of 2,000 pounds in 28 days is sufficiently strong for almost any foundation required in the oil fields, but using such arbitrary proportions as 1:2:3½, 1:3:6, etc., as is common practice, may give strengths considerably below or above this amount and are generally uneconomical. It is better to have examinations and tests made of any local fine or coarse aggregates near the job to determine if they will make good concrete and what proportions will make concrete of the desired strength at the least cost. Such tests are simple and generally will be made by any concrete engineer, testing laboratory or cement manufacturer for a very reasonable fee. This cost usually will be returned many times in the economic proportioning of materials.

To cite an example: In a West Texas field, where the nearest coarse aggregate is 28 miles away and the roads very poor, one company had such tests made of a local dune sand. They found that cement and this sand proportioned 1:2 and 1:2½, but using no coarse aggregate, made very satisfactory concrete for derrick and engine foundations. The tests on samples of this concrete were as follows:

Cyl. No.	Mix	Mixing water gal. per sack of cement	Age at test days	Total pounds	Lbs. per sq. inch	Remarks:
A	1:2	5	30	71,420	2,550	Same as used in main part of foundations and floors.
B	1:3	6	30	40,270	1,438	Same as used in the bottom of foundations.
B-1	1:2½	8	(*)	86,500	*3,090	Taken at B-1 countershaft foundation.

*3 months and 11 days.
Mixing time one-half minute dry and two minutes wet.
Absorption test on cylinder gave 5.15 per cent absorption.

The tests and examination cost $50. The saving by not hauling or using the coarse aggregate amounted to $325 for each derrick foundation and about half that amount for each engine foundation.

Deposits of sand, gravel, conglomerate and rock in the vicinity where concrete is to be made should always be thoroughly examined and tested to determine their suitability for use as concrete aggregate before adopting certain proportions and transporting material at great expense.

WILSON E. GRIFFITHS, OIL PIONEER, IS DEAD

Wilson E. Griffiths, president of the Magdalena Syndicate, died September 8, after a short illness, at his home in Pittsburgh, Pa. Mr. Griffiths was prominent in the petroleum industry for years and as an expert in the management of major petroleum operations his services were widely sought. His early education as an attorney served him in many of the early developments in western Pennsylvania and West Virginia.

In conjunction with a group of Pittsburgh associates his first great success was in opening up the Wildwood Pool near Pittsburgh; later he was activeiy identified with the Guffey and Galey activities extending from the Pennsylvania fields through Kansas and Oklahoma into Texas. When the Beaumont Pool was discovered by Guffey & Galey, later J. M. Guffey Petroleum Co., bringing in the Lucas gusher at Spindletop, Mr. Griffiths was in active charge of the land and leasing department of that firm and he took a leading part in the management of those interests which later were taken over by the Mellons of Pittsburgh and are now a part of the Gulf Oil Corp.

Mr. Griffiths served as one of the executive committee of the safety organization at Beaumont and later became active in the Oklahoma district in connection with the pipe line activities of the Mellon interests.

In more recent years Mr. Griffiths represented T. N. Barnsdall in some of his European negotiations and later acted as manager for Henry L. Doherty & Co. in Venezuela and Colombia. His wide personal knowledge of South American petroleum activities prompted him to acquire substantial interests in many South American petroleum ventures. At the time of his death he was president and chairman of the Board of Magdalena Syndicate, whose operations in the Magdalena Valley of Colombia are well known.

Mr. Griffiths leaves his wife and three sons, E. P. Griffiths, general attorney of the Philadelphia Co., Pittsburgh; Ralph Griffiths, a geologist and engineer in Tulsa, and Wilson E. Griffiths, Jr., Pittsburgh lawyer.

BUREAU OF MINES 1928 PETROLEUM STATISTICS

According to final figures compiled by the Bureau of Mines, Department of Commerce, covering production consumption and stocks of petroleum and its products and natural gasoline in 1928, the production of crude petroleum in the United States last year amounted to 901,474,000 bbls., natural gasoline 42,326,000 bbls. and benzol 2,809,000 bbls., a total domestic supply of 946,609,000 bbls., to which was added 91,557,000 bbls. of crude and refined oil imports making a total supply of 1,038,166,000 bbls., an increase over 1927 of 2 per cent. The report states that stocks of all oils at the close of the year were 619,725,000 bbls., an increase of 22,582,000 bbls. over the figures at the close of 1927.

The total domestic consumption is given as 861,135,000 bbls., a gain of 7 per cent over 1927.

Stocks of crude petroleum held by refiners east of California on December 31, 1928, amounted to 40,529,000 bbls., an increase of 1,200,000 bbls. over the same date in 1927. Other classes of crude stocks east of California, including producers' stocks, increased approximately 14,100,000 bbls., making a total increase of 15,300,000 bbls.

The total value of the oil at the well in 1928 was $1,054,880,000, an average of $1.17 per barrel. In 1927 the value was $1,172,830,000, an average of $1.30 per barrel, and in 1926, $1,417,760,000, an average of $1.88 per barrel.

A total of 913,295,000 bbls. of crude petroleum was run to stills in the United States last year. The production of motor fuel in 1928 amounted to 16,001,600,000 gallons, or 380,990,000 bbls. The recovery of gasoline from crude amounted to 41.3 per cent as compared with 39.9 per cent in 1927. The total indicated domestic demand for gasoline was 328,489,000 gallons, an 11 per cent increase over 1927.

The complete tabulated report will be published in a later number.

CODE COMMITTEES TO MEET

Results of the first month's operation of the national code of marketing practices for refined petroleum products, put into effect by the petroleum industry August 31, will be discussed at a joint meeting of code committees in the Mayo Hotel, Tulsa, on October 3.

Attending will be members of the national committee on interpretation, the six regional code committees and the chairmen of all the state and other code sub-committees. The purpose of the meeting will be to receive reports of the progress made in putting the code into effect and for general discussion of rules and interpretations.

The board of directors of the American Petroleum institute will meet at Tulsa on October 4. Various matters pertaining to the code will be discussed at that meeting also.

LEGAL NOTICES

On September 27th, 1929, at 10 o'clock A. M., on the premises of the Company in the City of Franklin, Pennsylvania, there will be exposed to sale at public auction, all the property and assets of the FRANKLIN QUALITY REFINING COMPANY, consisting of an oil refinery and an oil and gasoline distributing business.

H. CARL WASSON, Receiver,
Franklin, Pa.

NOTICE OF SALE OF OIL AND GAS LEASES ON PART OF UNIVERSITY LANDS

Pursuant to the provisions of Chapter 383 of the General and Special Laws of Texas passed at the Regular Session of the Forty-first Legislature approved March 29, 1929, the Board for Lease of University Lands hereby offers for sale, subject to the right to reject all bids, upon sealed competitive bids in Austin, Tex., at the General Land Office, October 1, 1929, at 10 o'clock a. m. the oil and gas rights in and under the following described University lands:

N½ of N½ Section 1, Block 35, Ector County;
S½ of N½ Section 1, Block 35, Ector County;
N½ of S½ Section 1, Block 35, Ector County;
S½ of S½ Section 1, Block 35, Ector County;
N½ of N½ Section 2, Block 35, Ector County;
S½ of N½ Section 2, Block 35, Ector County;
N½ of S½ Section 2, Block 35, Ector County;
S½ of S½ Section 2, Block 35, Ector County;
N½ of N½ Section 3, Block 35, Ector County;
S½ of N½ Section 3, Block 35, Ector County;
N½ of S½ Section 3, Block 35, Ector County;
S½ of S½ Section 3, Block 35, Ector County;
NE¼ of Section 11, Block 35, Crane and Ector Counties;
NW¼ of Section 11, Block 35, Crane and Ector Counties;
SW¼ of Section 11, Block 35, Crane County;
SE¼ of Section 11, Block 35, Crane County;
NE¼ of Section 12, Block 35, Crane and Ector Counties;
NW¼ of Section 12, Block 35, Crane and Ector Counties;
SW¼ of Section 12, Block 35, Crane County;
SE¼ of Section 12, Block 35, Crane County;
NE¼ of Section 13, Block 35, Crane County;
NW¼ of Section 13, Block 35, Crane County;
SW¼ of Section 13, Block 35, Crane County;
SE¼ of Section 13, Block 35, Crane County;
NE¼ of Section 14, Block 35, Crane County;
SE¼ of Section 14, Block 35, Crane County;
NW¼ of Section 14, Block 35, Crane County;
SW¼ of Section 14, Block 35, Crane County;
NW¼ of SW¼ of Section 13, Block 18, Pecos County;
SE¼ of SE¼ of Section 14, Block 18, Pecos County;
SE¼ of NW¼ of Section 24, Block 18, Pecos County;
S½ of NW¼ of Section 7, Block 17, Pecos County;
N½ of SW¼ of Section 7, Block 17, Pecos County;
S½ of SW¼ of Section 7, Block 17, Pecos County;
N½ of NE¼ of Section 7, Block 17, Pecos County;
S½ of NE¼ of Section 7, Block 17, Pecos County;
N½ of SE¼ of Section 7, Block 17, Pecos County;
S½ of SE¼ of Section 7, Block 17, Pecos County;

As to the lands in Ector and Crane Counties, the Board has fixed a minimum yearly rental of not less than Fifty Cents per acre and a royalty of not less than one-eighth. As to the lands in Pecos County the Board has fixed a minimum annual rental of not less than One Dollar per acre and a royalty of not less than one-sixth; all leases to run for a period of three years.

Blank applications for purchase and form of lease prescribed by the Board may be had by applying to the Secretary of the Board at the General Land Office.

Dated at Austin, Texas, this the 14 day of September, A.D., 1929.

BOARD OF LEASE FOR UNIVERSITY LANDS

By: Edward Crane, Chairman
Robt. L. Holliday,
J. H. Walker, Members of Board.

LEADING OKLAHOMA AND TEXAS OIL PRODUCERS, FIRST HALF OF 1929

By James McIntyre

The Gulf Production Co. was the largest producer of crude oil in Texas in the first half of this year. That company produced 14,767,141 bbls. Next to it was the Humble Oil & Refining Co., a subsidiary of the Standard Oil Co. of New Jersey, with 10,819,825 bbls.

It is interesting to note that in the first half seven Standard companies produced 36,696,612 bbls. of oil while the four largest non-Standard companies produced 35,214,474 bbls., and the first seven non-Standard companies produced 45,306,332 bbls., or 10 per cent more than their Standard competitors of similar number.

The largest producers in the Standard group were the Humble Oil & Refining Co., Southern Crude Oil Purchasing Co. (Standard of Indiana), Magnolia Petroleum Co., (Standard of New York); Mid-Kansas Oil & Gas Co. (Ohio Oil Co.); Prairie Oil & Gas Co., Atlantic Oil Producing Co., (Atlantic Refining Co., California Co., (Standard of California).

In all there were 65 companies with an average daily production in excess of 1,000 bbls. for the whole six months' period. These companies produced altogether 119,833,695 bbls., of 141,267,254 bbls., the total production of the State, or 84.9 per cent.

In the Oklahoma fields, the Prairie Oil & Gas Co. was the leading producer in the first half of the year with a total of 8,547,224 bbls., the Magnolia Petroleum Co., Sinclair Oil & Gas Co., and Gypsy Oil Co. had a close run for second position, finishing the six months in the order named.

The seven Standard companies with the largest production reported a total of 23,734,566 bbls., while the seven leading non-Standard companies produced 32,385,340 bbls.

The seven Standard companies included the Prairie Oil & Gas Co., Magnolia Petroleum Co., Carter Oil Co. (Standard of New Jersey), Atlantic Oil Producing Co., Mid-Kansas Oil & Gas Co., Vacuum Oil Co., and Humble Oil & Refining Co., and the seven non-Standard companies are Sinclair Oil & Gas Co., Gypsy Oil (Gulf Oil Corp.), Pure Oil Co., Independent Oil & Gas Co., Shell Petroleum Corp., Indian Territory Illuminating Oil Co., and Mid-Continent Petroleum Corp.

Only 48 companies in the State had a production of more than 1,000 bbls. per day for the six-month period. Their combined production of 81,193,611 bbls. was 64.4 per cent of the total production of 126,020,155 bbls. credited to the State.

NET PRODUCTION OF LEADING OKLAHOMA OIL COMPANIES FIRST SIX MONTHS 1929

(Companies with average daily production of 1,000 bbls. per day or over.)

Company—	First 3 months bbls.	Second 3 months bbls.	Total 6 months bbls.
Prairie Oil & Gas Co.	3,988,915	4,558,309	8,547,224
Magnolia Petroleum Co.	3,873.040	3,896.259	7,769,299
Sinclair Oil & Gas Co.	3,115.580	3,958.297	7,073,877
Gypsy Oil Co.	3,555,497	3,576,529	7,132,026
Carter Oil Co.	2,718,560	2,659,236	5,377.796
Pure Oil Co.	2,751.582	2,380,947	5,132.529
Independent Oil & Gas Co.	2,258,844	1,722,477	3,981,321
Shell Petroleum Corp.	1,563,973	1,641,038	3,205,011
Indian Territory Illuminating Oil Co.	1,880,431	1,057.813	2,938,244
Mid-Continent Petroleum Corp.	1,275.960	1,646,372	2,922,332
The Texas Company	1,320,324	1,135,180	2,455,504
Barnsdall Oil Co.	1,287.276	1,116.078	2,403,354
Amerada Petroleum Corp.	870,993	815,789	1,686,782
Atlantic Oil Producing Co.	385,695	363,496	749,191
Continental Oil Co.	101,469	124,315	225,784
Comar Oil Co.	627,254	636,852	1,264,106
Champlin Refining Co.	229.743	214.498	444,241
Darby Petroleum Co.	141.020	459,956	600,976
Empire Oil & Refining Co.	318,835	618,193	937,028
Wirt Franklin Petroleum Corp.	182,387	176.750	359,137
Foster Petroleum Corp.	229,485	207,615	437,100
Homaokla Oil Co.	199,334	199 903	399.237
Humble Oil & Refining Co.	229,828	225,134	454,962
Josey Oil Co.	160,058	155.532	315,590
Kewanee Oil & Gas Co.	306,730	245.306	552 036
Louisiana Oil Refining Co.	91,394	109,279	200,673
Laurel Oil & Gas Co.	187,609	142,377	329,986
Margay Oil Corp.	152.360	109,888	262.248
Marland Production Co.	414,173	473,798	887,971
Mid-Kansas Oil & Gas Co.	330,319	283,449	613,768
Minnehoma Oil Co.	93,306	112 465	205.771
Papoose Oil Co.	90,244	158,824	249,068
Phillips Petroleum Co.	647,155	606,577	1,253,732
Producers & Refiners Corp.	278,684	101.639	380.323
Skelly Oil Co.	944,758	767,300	1,712,058
T. B. Slick	1,475,846	112,697	1,588,543
Shaffer Oil & Refining Co.	380,365	296.828	677,193
Silurian Oil Co.	106.403	113 511	219,914
Schermerhorn Ardmore Co.	102,843	96,173	199,016
Superior Oil Corp.	219,402	179,657	399,059
Tidal Oil Co.	632.415	620,750	1,253,165
Turman Oil Co.	147.825	137.825	285.650
Twin State Oil Co.	576,093	796,669	1,372.762
Vacuum Oil Co.	111.163	111,163	222.326
Wolverine Petroleum Corp.	170,393	169,098	339,491
Westheimer & Daube	217.368	186,758	404.126
Wentz Oil Corp.	145.349	144.188	289.537
Wilcox Oil & Gas Co.	222.219	260 325	482.544
Total production 48 companies	41,310,499	39 883,112	81.193,611
Total production 1,350* others	22,567,801	22,258,743	44,826,544
Total production all companies	63,878,300	62,141,855	126,020,155

*Estimated.

GROSS PRODUCTION OF LEADING TEXAS OIL COMPANIES FIRST SIX MONTHS 1929

(Companies with average daily production of 1,000 bbls. per day or over.)

Company—	First 3 months bbls.	Second 3 months bbls.	Total 6 months bbls.
Gulf Production Co.	7,173,134	7,594,007	14,767,141
Humble Oil & Refining Co.	4,496,154	6 323,671	10,819,825
Southern Crude Oil Purchasing Co.	3 984,993	3,811.091	7 796.084
The Texas Company	3,606,195	4,047.496	7,653,691
Shell Petroleum Corp.	3,555,870	3,345,652	6,901,522
Yount-Lee Oil Co.	3 076.093	2,816,027	5.892,120
Magnolia Petroleum Co.	2,726.879	2.568,770	5,295,649
Mid-Kansas Oil & Gas Co.	1,781,851	2,088.399	3.870,250
Transcontinental Oil Co.	1,735,375	2,068,707	3.804,082
Marland Production Co.	1,352,907	1.817.468	3,170,175
Phillips Petroleum Co.	1 408,472	1,709.129	3.117.601
Pure Oil Co.	2.220,558	751,508	2,972,066
Prairie Oil & Gas Co.	1,454,272	1,497,737	2,952,009
Atlantic Oil Producing Co.	1.616 288	1.249.824	2.866,112
California Co.	1,352,763	1,507.015	2,859,778
Sun Oil Co.	1,338,140	1,270,139	2,658,279
Big Lake Oil Co.	1,189,013	1,156.287	2,345,300
Skelly Oil Co.	1,256 559	942 435	2,207,994
American Maracaibo Oil Co.	299,902	355,367	655,269
J. S. Abercrombie Co.	125,252	152,791	278,043
Amerada Petroleum Corp.	597.164	446.898	1,044,062
Cockrell-McIlroy Oil Co.	74,573	154,098	228.671
Continental Oil Co.	552,385	576,473	1,128.858
J. S. Cosden, Inc.	417.580	359 903	777,483
Cranfill Brothers Oil Co.	179,149	133,820	312,969
Cranfill & Reynolds	394.572	304,153	698,725
Danciger Oil & Refining Co.	88.811	171,867	260.678
Empire Gas & Fuel Co.	287,045	402,101	689,146
Eastland Oil Co.	122,592	116 911	239,503
Fain-McGaha Oil Corp.	529.205	478.951	1,008.156
Grayburg Oil Co.	207,758	243,300	451,058
Group 1 Oil Corp.	449,762	496,244	946,006
Houston Oil Co.	78,207	126,836	205,043
Humphreys Corp.	197,081	206,605	403,686
Independent Oil & Gas Co.	430.461	368,241	798,702
Louisiana Oil Refining Co.	120,565	101.759	222.324
Lion Oil & Refining Co.	no report	1,108,377	1,108,377
McMan Oil & Gas Co.	550.014	686.654	1,236,668
Murchison Oil Co.	274,288	217,530	491,818
Petroleum Producers Co.	102,390	93,423	195.813
Rycade Oil Corp.	205,944	190,799	396,743
Roeser & Pendleton, Inc.	386.348	390,492	776,840
Republic Production Co.	937,707	741.855	1,679,562
Rio Bravo Oil Co.	422,823	591,460	1,014,283
Merrick & Bristow	180,651	249.858	430,509
Moutray Oil Co.	97.307	112,013	209,320
Midwest Exploration Co.	106,651	130,254	236,905
Moody Corp.	824,744	833,880	1,658,624
Navarro Oil Co.	194,422	349,400	543,822
Operators Oil Co.	no report	293,378	293,378
Owen-Sloan Oil Co.	140.729	185,745	326,474
E. L. Smith Oil Co.	191,463	152,171	343,634
Snowden & McSweeney Co.	120,039	85,550	205,589
Sinclair Oil & Gas Co., Tulsa	154,212	259,171	413,383
South Texas Petroleum Co.	207.884	286.809	494,693
Schermerhorn Oil Co.	240,842	208,758	449,600
Saxet Oil Co.	43,151	176.802	219,953
Simms Oil Co.	827,280	878 814	1,706.094
T. G. Shaw	94,904	178,231	273,135
Texas Pacific Coal & Oil Co.	306.990	357.840	664,830
Texon Oil & Land Co.	173,396	190,890	364,286
Ward Oil Corp.	50,707	122,860	173,567
Warner Quinlan Co.	250,958	203,389	454,347
Waggoner Refining Co.	485.128	392,235	877,363
Tidal Oil Co.	230,615	215,210	445,825
Total production 65 companies	58,288,167	61,545,528	119,833,695
Total production 1,220* others	10,298,860	11,134,699	21,433,559
Total all companies	68,587,027	72,680,227	141,267,254

*Estimated.

WAGNER HAS DALLAS OFFICE

The Wagner Electric Corp., St. Louis, Mo., has opened a new branch sales office at 734 Allen Building, Dallas, Tex., to cover Texas and parts of Louisiana and Arkansas. Alfred B. Emrick has been placed in charge as manager.

Late Fields

(Continued from Page 48)

rock well. His other wells made shows at this level but were dry. No. 2 on the same lease, the first producer, has increased from 50 bbls. initial to over 120 bbls., and No. 3 has grown from 10 bbls. to over 90 bbls.

WEST TEXAS

FORT WORTH, Tex., Sept. 17.—Shell Petroleum Corp.'s No. 7 Scarborough, SW NE, Section 2, Block 77, top pay 2,942 feet, total depth 3,141 feet, flowing by heads first 24 hours made 90 bbls., second 24 hours 70 bbls. It is a 2-mile southeast extension of the Llano Pool, Winkler County. M. M. Rowan's No. 1 University, Section 25, 5½ miles east of Taylor-Link Pool, Pecos County, had first showing of oil at 1,760-68 feet, second show at 1,795 feet, running casing at 1,800 feet.

EAST CENTRAL TEXAS

HOUSTON, Tex., Sept. 17.—Pure Oil Co.'s No. 1 Jarman, on what is known as the Grand Saline Dome, on the Van Zandt-Smith County line, East Central Texas, is setting casing on packer in an attempt to make another test of a sand showing oil at 2,603-25 feet. A drill stem test was made of the sand which tests two joints of mud with a showing of oil and very little gas. This is the first deep test drilled here following the drilling of a series of geological core tests.

Announcing

A SENSATIONAL NEW BIT!

by

WKW

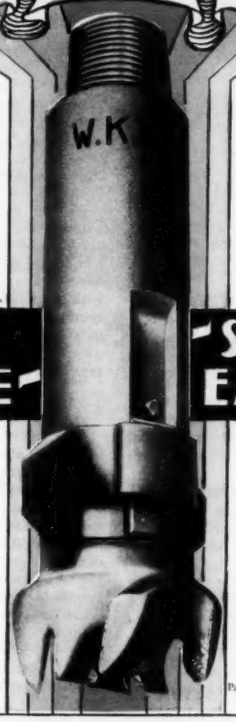
Actually drills more hole and cuts less formation- Cuts a core and then destroys it

"The inside blades easily dispose of the core...which loses its resistance owing to isolation from rest of formation"

Drills a straighter full size hole with less power and reduces twist-offs

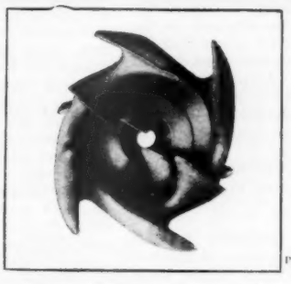
No threads to become damaged...
No bolts or nuts to bother with...
No time lost in changing bits

Model 5



"IT'S ALL IN THE CORE-

-STRAIGHTER HOLE- EASIER DIGGING"

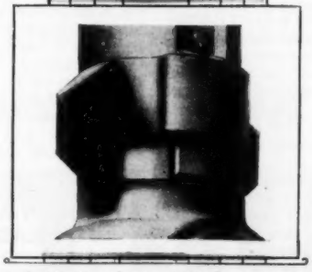


Patented 1709275

End view showing water course and core destroying blades

Patents Pending

View showing the long reaming blades which cut full size hole. Fresh bit can be run to bottom without reaming



Showing method of locking shoe to shank. By a quarter turn two lugs on the shoe are engaged in recesses on the shank. Two locking keys are then slipped into place. Set screws are provided as a safety feature to prevent the locking keys from sliding upwards

WIEMAN KAMMERER WRIGHT, INC.

HOLLYDALE [*LOS ANGELES COUNTY*] CALIFORNIA

Of Interest to Sales Departments

Joint Meeting on Code To Be Held in Tulsa Thursday, October 3

NEW YORK, Sept. 16.—Hundreds of companies engaged in refining and marketing petroleum products already have accepted the National Code of Practices for Marketing Refined Petroleum Products recently approved by the Federal Trade Commission, W. R. Boyd, Jr., executive vice president of the American Petroleum Institute, announced today. Mr. Boyd said he had been informed by many companies that they had filed formal notice of acceptance and intention of putting the Code into effect at once with the Federal Trade Commission at Washington. It is the understanding of the Institute, which sponsored the Code, that the Commission will announce the names of signatories during the week of September 9.

Mr. Boyd said that among larger marketing companies formally accepting the Code are the Standard Oil Co. of New Jersey, The Texas Company, Sinclair Refining Co., Vacuum Oil Co., Texas & Pacific Coal and Oil Co., Pure Oil Co., Standard Oil Co. of Indiana, Barnsdall Refining Co., Atlantic Refining Co., Beacon Oil Co., White Star Refining Co., Indian Refining Co. and the Skelly Oil Co. Hundreds of other companies unofficially have advised the Institute of their intention to file formal acceptance shortly.

Explaining that the Code, which is designed to establish fair methods of competition in marketing refined petroleum products, was prepared for the entire petroleum industry, Mr. Boyd declared that responsibility for its success must inevitably rest upon units engaged in refining and marketing and that neither the Federal Trade Commission nor the Institute can be expected to maintain it.

"It is my personal judgment," he said, "that almost without exception every company in the oil business will sooner or later accept and conform wholeheartedly to all the rules of the Code because they find it good business practice for them to do so. Once the new rules become established there will be litle difficulty in maintaining them."

A joint meeting of the National Committee on Interpretation, the six Regional Code Committees and chairmen of all state and other Code sub-committees has been called for October 3 in the Mayo Hotel at Tulsa, Oklahoma. Reports will be received of progress made in putting the Code into effect during the first month. Directors of the Institute will meet at Tulsa the following day.

TO AVOID POLLUTION

In an effort to aid the Playground and Recreation Commission in its attempt to cut down pollution of the beaches of southern California, the Richfield Oil Co. of California, together with its subsidiary, Pan American Petroleum Co., has directed all masters of its tanker fleet to discharge water ballast at least 50 miles at sea before entering Wilmington harbar, prior to loading gasoline, fuel oils and other petroleum products for coastwise, Atlantic seaboard or foreign destinations.

Oily waste has continued to be deposited at various beaches between Santa Barbara and San Diego, making bathing disagreeable. While it has been the custom to discharge water ballast a number of miles offshore, the oily film washed out of cargo tanks has floated inshore with the wind and tides, but it is thought that emptied 50 miles at sea, it will be unaffected by the elements in so far as shore drift is concerned.

FIRST ST. LOUIS STATION OWNER SELLS PROPERTIES

ST. LOUIS, Mo., Sept. 16.—In connection with the sale this week of the properties of the Automobile Gasoline Co. to the Shell Petroleum Corp., Clemens Henry Laessig, who is said to have built the first drive-in gasoline filling station in St. Louis, retires from active business.

Mr. Laessig entered the oil business 40 years ago as an office boy for the International Oil Works. In 1904, with associates he organized the Automobile Gasoline Co. and he has been the active head of the company since that time.

At the time of the organization of the company it was customary to fill the tanks of automobiles from tank wagons. There were approximately 300 cars in St. Louis. In 1907, Mr. Laessig decided that customers desired better service than was afforded by tank wagons and built the first drive-in station at Washington and Walton Avenues. The venture proved profitable and in 1909 a second station was built.

The properties which in the future will be operated by the Shell corporation include 10 service stations and two bulk stations, all of which are located in this city. The new owners will retain the personnel of the Automobile company. Mr. Laessig expects to make a tour of Europe in the near future.

AUTOMOBILE OUTPUT LIKELY 5,500,000

A total of 516,522 cars were produced in August according to an estimate of the National Automobile Chamber of Commerce. This compares with a total of 517,792 cars in July and 492,543 cars in August of last year.

The first eight months of this year a total of 4,446,000 cars was manufactured. This is an increase of 37 per cent over the total of 3,236,364 for the first eight months of 1928.

The outlook for a heavy car production in September is assured. It is predicted that the 1929 production will exceed 5,500,000 cars, which compares with 4,601,141 cars for 1928.

MASTER SERVICE STATION

KANSAS CITY, Mo., Sept. 14.—The Firestone Tire & Rubber Co. has announced its intention to erect one of its "master service stations" in which tire and battery service is combined with complete gasoline, oil and greasing service. The site selected is on a 100 by 185 foot lot at the corner of Troost Avenue and Linwood Boulevard.

A large two-story building is planned at the site, which has a value of approximately $350,000. The Firestone management has announced that between 50 and 60 men will be employed at the station to care for the several services available to motorists. This, it is said, would be the largest station of its kind to be erected by the Firestone company.

IMPERIAL AIR DERBY

CHATHAM, Ontario, Sept. 14.—C. O. Stillman, president of Imperial Oil, Ltd., has made informal announcement that his company contemplates offering a prize of $50,000 for the purpose of promoting an international aviation event to be known as the Imperial Air Derby. The race is to be held in 1930, on a date to be fixed later, and is to start from some point in the United States and finish at a Canadian landing field. It will be open to pilots not merely of the United States and Canada but of other countries.

OIL ELECTRIC ENGINE COMPLETES TRIAL RUN

CHATHAM, Ontario, Sept. 14.—Oil electric locomotive No. 9,000 has made its first trial run on the Canadian National Railways from Montreal to Toronto, hauling the second section of the "International Limited." This new locomotive represents the latest adaptation to railway locomotion of the oil-electric principle. Oil fuel is used to operate the engine which drives the electric generator, power from which furnishes the energy to turn the propulsion motors. Railway executives from many parts of Canada and the United States were aboard the train on the trial run. The train made better than 60 miles an hour, and officials claim a possible speed of 70 miles, and that, equipped with an oil tank car, it could draw a train across Canada from the Atlantic to the Pacific without refueling.

The locomotive consists of two units, made up of an oil engine generator set mounted on a locomotive frame, boiler equipment for heating coaches, and four traction motors for propelling. Fully equipped it weighs 668,000 pounds. Power develped by the engine is converted into electrical energy by the generator and transmitted to the traction motors. Heavy oil is used for fuel, and on the trial run Canadian oil was used, and it is stated development of the locomotive will furnish a new outlet for Canadian heavy crudes. The new oil-electric motive is the most powerful of its kind in the world.

PETROLEUM INDUSTRY BIG RAIL CUSTOMER

The petroleum industry is one of the largest customers of the railroads in the United States, its business accounting for 8.56 per cent of the total revenue derived by railroads in 1928. According to The Lamp, official publication of the Standard Oil Co. of New Jersey, the revenue derived from the petroleum industry in the movement of crude oil and refined products totaled $369,457,625 in 1928. This total exceeded that of any single industry except coal, agricultural products and lumber.

The bulk of the petroleum revenue comes from the rail shipment of gasoline and other refined products. Crude oil is not a large source of revenue, due to the fact that crude oil is usually transported from the fields to the refineries by pipe line and tanker. Following is the revenue return for 1928: Refined oils and gasoline, $252,021,231; fuel oil, road oil and petroleum residuals, $45,950,560; lubricating oils and greases, $23,168,130; crude oil and asphalt, $47,000,000; and miscellaneous products, $1,492,985.

ATCHISON AND HOPKINS TO HEAD DEPARTMENTS

J. R. Atchison of the marketing division of the Independent Oil & Gas Co., Tulsa, has been appointed head of a new department of education. Charles H. Hopkins, formerly of St. Louis, has been placed in charge of a new department which will have charge of advertising, publicity and public relations.

Mr. Atchison was a division manager for the Manhattan Oil Co. at the time it was taken over by the Independent company last year and has had several years' experience in the marketing branch of the oil business. His department will be responsible for the education of all employes coming in contact with the public in retail sales. The headquarters of both departments will be at Tulsa, where the general offices of the company are located.

Standard Manager Says Independent Oil Dealer to Stay

Following is an interview by Arthur H. Little of Printers' Ink with C. C. Sheffield, vice president in charge of sales, Standard Oil Co. of New Jersey. The interview is concerned with the status of the independent oil dealer in the marketing of petroleum products. The interview opens with a question by Mr. Little as to whether or not the independent dealer is to be eliminated by the large chain operated stations.

"He hasn't yet," said C. G. Sheffield, "and I, for one, cannot foresee his passing. From the oil industry's own selfish point of view the independent still is too important an outlet for the industry to tolerate his retirement from our distributive system."

Standard Oil Co. of New Jersey markets its gasoline in seven eastern states and the District of Columbia. From New York the motorist, southward bound, may replenish his gas tank at Standard of New Jersey stations as far as the Georgia line, and over the same route he may buy his gas if he likes from independent dealers that retail Standard products. In the territory, were he to thread all its highways, he would find Standard stations to the number of about 1,000 and Standard retailers, including "split" accounts, to the number of 30,000.

"In effect," I said to Mr. Sheffield, "you're a chain of retail stores that sells its goods besides through independent merchants."

"We are," he agreed. "And while we bend every effort to improve our retailing methods, we protect our retailer customers. We're spending money, not to finance them, but to help them prosper. In April, 1927, we established a dealer publication that has a circulation of 35,000. Into that publication goes every month the best information that we can assemble for the dealer's benefit. It carries pictures and descriptions of model stations, detailed descriptions of successful methods—not theoretical stuff, but practical methods that are being applied by capable retailers in our territory. It carries information on technical and mechanical subjects — charts, for instance, that disclose the lubricating points of every make of automobile in general use.

"The dealer publication, important as it is, is merely an index to a general policy of passing on to the independent whatever we are able to learn about successful retailing. In this respect, our own service stations serve as laboratories. In our own stations we've learned what merchandising-at-the-point-of-sale can do.

"Some years ago we conducted a study of the methods and manners of the men in our own stations. We examined every man on two counts—selling and service. If in the routine of serving customers he offered a single suggestion that might directly affect sales—if, for instance, he asked the customer, 'Shall I fill the tank?'—that suggestion counted as a score in selling. And if, in serving the customer, he performed any act not specifically requested and not required by the routine of the transaction—if, for instance, he cleaned the windshield or checked and filled the radiator—then that act counted as a score in service.

"Our survey disclosed that on the combined qualities of selling and service—two qualities that bore directly on our volume—our own men rated, on the average, just 20 per cent.

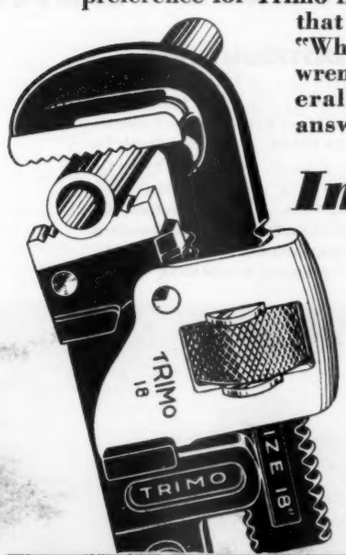
"We tackled the job of boosting that average. We raised our standards of employment; and, to insure that we'd attract higher-grade men, we provided incentive. For each station we established step-up salary levels to the end that a man who would use his head and expend

Probably a TRIMO -- *and Why*

When you see a man putting all he's got behind the pull—implicitly trusting the wrench to hang on and stay together, the wrench in question is probably a Trimo. So overwhelming is the preference for Trimo in the oil fields that the question "What kind of a wrench is it" generally draws the answer "TRIMO."

As for reasons why, let Trimo show you for itself. Test its strength by any test you want—compare its construction part for part with any other wrench made. Trimo is all steel with a handle heat treated for super strength. Replaceable jaws multiply its working hours indefinitely.

And every part of this mighty wrench is made and inspected by the Trimont Co.

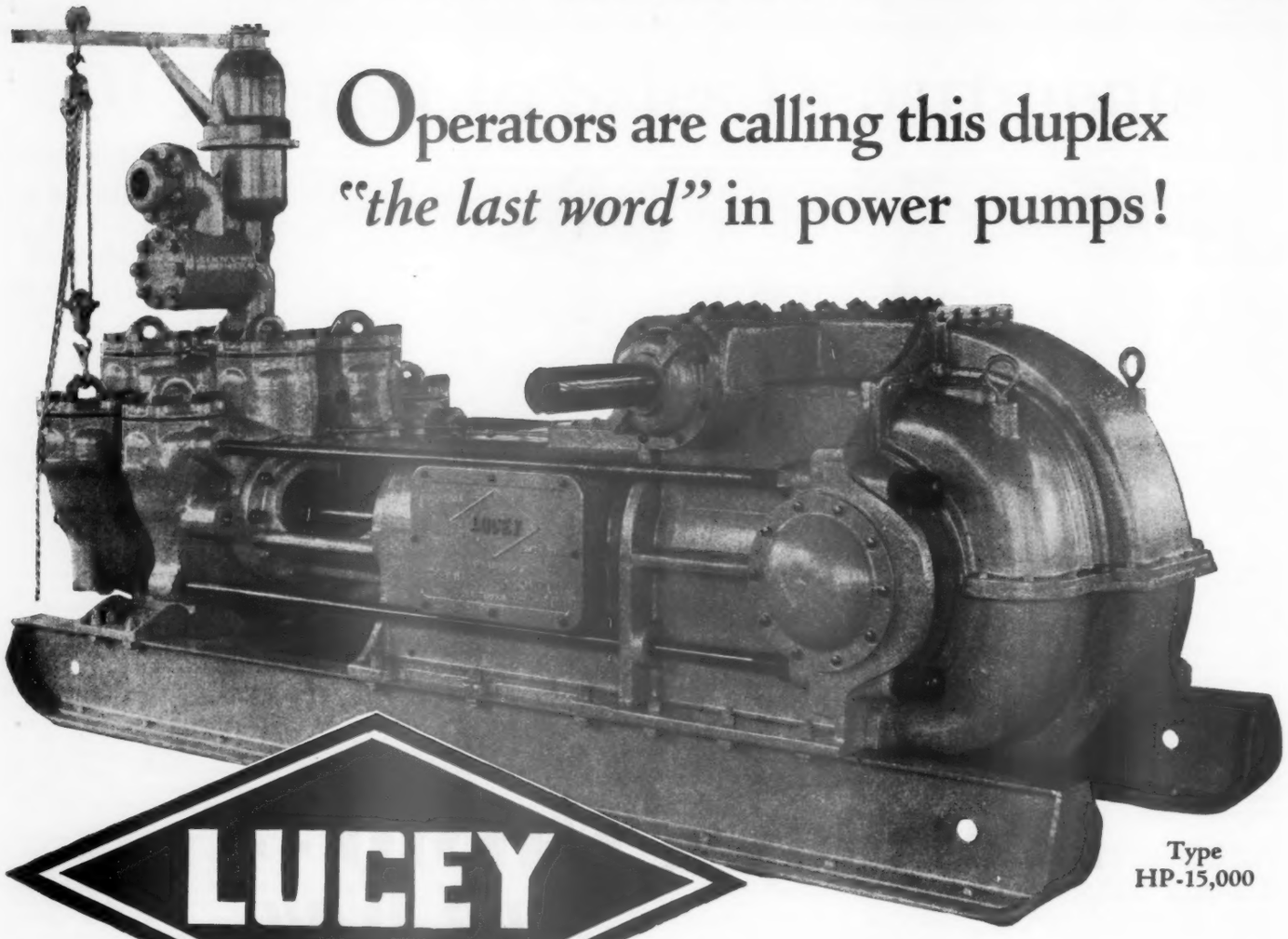


Improved and Mightier

TRIMO
Pipe Wrench

TRIMONT MFG. CO., INC.
Roxbury (Boston), Mass.

Operators are calling this duplex *"the last word"* in power pumps!



Type HP-15,000

7¾" x 18" POWER DRIVEN SLUSH PUMPS WITH TIMKEN ROLLER BEARINGS

THIS new power pump incorporates, among other features, the patented tie rods, the oversize piston rods and the utility crane which have made the LUCEY Steam Pump so successful and popular.

Steel forgings, heat treatment of parts subject to strain and the use of Timken Bearings at vital points assure long life and uninterrupted service from this unit.

The pump is driven through a two speed gear box, adding greatly to the flexibility and making a more compact, efficient hook-up. By changing to low speed additional pressure is readily available without overloading the motor or installing smaller liners in the pump. Suitable for any type of motive drive... electric, gasoline or Deisel.

DISTRIBUTORS:

HOUSTON . . . T. T. Word Supply Co.
BEAUMONT . . . . . Norvell-Wilder
FT. WORTH and WINK, Hercules Supply Co.
WICHITA FALLS . . Bradford Supply Co.
TULSA . . . . International Supply Co.
WICHITA . . . Bridgeport Machine Co.
CASPER, WYO. , . Champion Supply Co.
LOS ANGELES, The Oil Well Equipment Corp.
SAN FERNANDO, TRINIDAD, B.W. I.
PLOESTI, ROUMANIA

LUCEY PRODUCTS CORPORATION

NEW YORK, . 3505 Woolworth Bldg.
TULSA, ... 224 E. Brady St.
LOS ANGELES, . . 5043 Santa Fe Ave.
SHREVEPORT, P. O. Box 116 . HEALDTON, Oklahoma, . DUNCAN, Oklahoma
HOUSTON, ... P. O. Box 609
LONDON, . . 54 Old Broad St., E. C. 2
PARIS, ... (1er) 55 Rue de Rivoli

"WHEREVER THERE'S OIL"

extra effort toward building business, might increase his income by climbing to the higher levels. We established a line of promotion through the service station upward into supervisory jobs and into general sales. And we hold fast to that line. Thus the man who takes a service station job actually knows that he needn't be a service station attendant all his life—on a service station attendant's pay. We devised and placed in operation a plan by which to teach our station men how to sell larger volumes of our product and, at the same time, win a larger measur of the public's good will.

"Today in our stations you'll find a different atmosphere. On the whole—for, of course, there are exceptions—our men are alert and courteous and thoughtful. And each of them sells more volume.

"We've seen what that sort of merchandising can do. And we've passed on the discovery—simple as it is, but highly important—to our independent dealers. As a result, it's not merely in a Standard operated station today that an attendant will impress you by his care and his thoroughness and his salesmanship, but in many an independent station.

"It has been said that the wayside filling station is passing, to be supplanted by the filling station de luxe. Undoubtedly, just as in other lines of merchandising, there is a high turnover among filling station retailers. The business requires comparatively little capital; and although the distributor may adopt the policy of looking carefully into prospects and possibilities before encouraging a new outlet to open, the fact remains that the number of pumps along the highway doesn't seem to de diminishing.

Profit Margin on Gasoline

"And as to the station de luxe, the more de luxe it becomes, the closer it approaches the point of diminishing returns—the point where volume of sales fails to produce an adequate return on the investment. On gasoline, which constitutes the bulk of filling station business, the profit margin is very small. A given station can accommodate only so many cars at its pumps. To most motorists, gasoline is just a casual purchase, and the driver who, approaching a station, sees that the pump spaces are all occupied is likely to drive on to the next station. To increase its volume, the station must spread out—and occupy a considerable area of ground that, in most instances, is fairly expensive. And if the station is enlarged by building it into the air and on the upper floors, adding facilities for oiling and greasing, then the management is confronted by the problem of increased operating costs in a business in which the average unit of income is fairly small. Whether on the ground level, or on the upper floors of a building, automobiles are bulky things to handle and house.

"In general, while it is true that a station operated by a big distributor enjoys certain advantages, it must not be forgotten that the independent dealer has his advantages, too. Because the business is his own, he doesn't need to be persuaded to give it his conscientious attention. Rather often the business is a family affair, and its labor expense as a result is low. The independent dealer isn't handicapped by an eight-hour day. He doesn't need to pay the wages of a double crew of attendants to get the business of the early morning and the highly productive evening hours. And if he's alert and intelligent, as are many independents today, he can learn just as much about the science of retailing as can the bigger distributing company.

"The independent, I believe, is here to stay. The oil distributors recognize his place in the business, and, just as distributors are doing in other lines of business, the oil companies are encouraging him and helping him with all the facilities at their command. I doubt if there is any intention to crowd him out of business and to take retailing wholly out of his hands. Among oil companies, the highest percentage of direct retail business yet attained by any company that I know of is 40 per cent. The average I should say, is considerably lower than that."

The birthplace of the filling station—and perhaps this fact isn't generally known—was California. In California, whence Mr. Sheffield came to Standard Oil Co. of New Jersey by way of the fuel administration in Washington, he was with Union Oil. It is a coincidence that Standard Oil Co. of California, which several years ago embarked upon a project of extensive development of retailing facilities, now is leasing many of its company-owned stations to retail operators and, for the benefit of its independent outlets, has established a dealer publication.

CENTRAL WEST FIELDS

(Continued from Page 67)

fields. The Murphy Oil Co. found a dry hole in the NW cor. of the J. R. Brinton farm, in the SW of Location 12, Clay Township, Pike County, at a total depth of 1,450 feet. In Washington Township, same county, Harry Rischer and others' test in the NE cor. of the John Arnold farm, in the NE, Section 17, was also a duster at a total depth of 1,140 feet. Robertson and others are drilling on the Bryan Preston farm, Section 30, same township, and H. C. Darby and others are drilling No. 3 on the G. Stewart farm, Section 23, Logan Township.

Fred Bays found a dry hole, 660 feet from the south and east lines of the R. M. Bledsoe farm, in the SE SW, Section 27, Gill Township, Sullivan County, at a total depth of 2,765 feet.

Petroleum Exploration Co. is drilling No. 1 on the R. Howell farm, in Monroe County, in the southern central part of the State of Indiana, far in advance of present production.

ILLINOIS

The Dupo Field is attracting great attention, not alone for its rapid development but its good average producers at very shallow depths, the oil being found in the Trenton Rock formation at depths varying from 400 to 750 feet. much shallower than in the old Trenton Field of northwestern Ohio and northeastern Indiana. This new and rich pool lies almost directly south of East St. Louis, in Sugar Loaf Township, St. Clair County, in western Illinois. Some very nice wells have been found on acreage property, but the bulk of the new work done so far is on town lots and they are getting them in very thick, which means that the pay sand will soon be drained. Most of the wells are good for enough production to more than pay for the investment and dry holes are almost an unknown thing, as but one was found during the past month, and since the last week's review 27 completions are reported and all are producers ranging from 5 to 80 bbls. initial.

On the Matilda Dryroff farm, in the SE, Section 28, Sugar Loaf Township, the Ohio Oil Co.'s No. 8 pumped 20 bbls. at from 528-71 feet, while No. 9 produced 80 bbls. in 24 hours from 486 to 551 feet. The St. Clair Oil Co.'s No. 1 well, 1,780 feet from the south line and 200 from the west line of the Fred Metter farm, in the SE, Section 34, same township, pumped 5 bbls. at 758-97 feet. Joseph May is drilling Nos. 1, 2, 3 and 4 on the John Lutton farm, Section 17, and if production is found will make quite an extension to the town lot development.

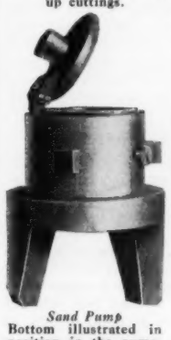
All other late completions are on town lots in the SE of Section 21, Sugar Loaf Township, as follows: Majestic Oil & Gas Co.'s No. 1 Peter Kurtz lot, 25 bbls. at 530-65 feet; H. & M. Development Co.'s No. 1 Mary A. Bostwick, 75 bbls.; same company's No. 2 F. and H. Weisenborn, 40 bbls. at 402 to 545 feet; same company's No. 1 Nolte-Goley, 15 bbls. at 500-42 feet; L. G. Blackman and others' No. 1 M. Hervey, 30 bbls. at 500-42 feet; W. S. Avery's No. 1 Earl Proffer, 75 bbls. at 487 to 556 feet; Thomas Whelan's No. 3 Lena Herbst, 30 bbls. at from 485 to 560 feet; George P. Hironimus and others' No. 1 Vincent Krack, 30 bbls. at 506-35 feet; Mossman Brothers' No. 1 Nevada Cooper, 70 bbls. at 486 to 544 feet; Trenton Rock Oil Co.'s No. 1 Robinson and others' lot, 25 bbls. from 514-38 feet; Lon Coleman's No. 1 Wright, 30

MILLER COMBINATION BAILER & SAND PUMP—*Speed With Certainty*

Star Bottom used for cutting the sand loose and preferred by some to the Chisel Bottom.

Chisel Bottom will save the expense of running tools and its chisel shape prevents sticking in tightly packed sands.

Bailer Bottom will speed up production in cavy holes by time saved in picking up cuttings.



Sand Pump Bottom illustrated in position in the pump.

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double duty
A *good Sand Pump*
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Combination Bailer and Sand Pump
. . . . a good *Bailer*

The Miller Combination Bailer and Sand Pump gives you Two dollars worth of work for every dollar spent. A double purpose tool that does the job faster and more economically *—that is the reason the Miller is going into every important field.*

As illustrated, the wire line has direct connection with Plunger, eliminating a rod, enabling use of a longer pump in the well. Plunger is made 18 inches long with eight water courses permitting the fluid to seal the valve on top of the plunger, thus creating a greater suction than in any other pump made.

Furnished with various type bottoms illustrated to meet any condition. Made in 2½, 3, 3½, 4, 4¼, 5, 5½, 7, and 9-inch sizes, with any length up to 30 ft.

Send for circulars and price list. The Miller Combination Bailer and Sand Pump is sold through the leading supply stores or direct from the factory.

Patented
March 1, 1921—No. 1370340
January 20, 1925—No. 1523604

MILLER
Combination Bailer & Pump Co.
SUPULPA, OKLAHOMA

bbls. at 495 to 540 feet; Knox & Robinson's No. 1 Pittman, 40 bbls. at 498 to 543 feet; Spencer & Walton's No. 1 Earl Proffer, 65 bbls. at 490 to 542 feet; Dupo Oil Investment Co.'s No. 1 Mrs. R. M. Stuckey, 20 bbls. at 497 to 533 feet; same company's No. 1 Henry Dahmar, 50 bbls. at 503-17 feet; Kelley and others' No. 1 George Schlemmer, 30 bbls. at 501-52 feet; Hart and others' No. 1 Laurentz, 45 bbls. at 505-52 feet; C. C. Bundy, trustee, No. 1 Chaplin-Johnson, 30 bbls. at 508-49 feet; Royce & Stevens' No. 1 E. R. Trout, 30 bbls., 505-49 feet; Robert Murray and others' No. 1 L. H. Weinert, 25 bbls. at 472 to 553 feet; A. R. Melton's No. 1 Arthur Hall, 70 bbls. at 515 to 547 feet; Ava Oil & Gas Co.'s No. 4 on the Dupo Township High School property, 80 bbls. at 487 to 537 feet; William Abbott and others' No. 1 Laura J. Miller, 60 bbls. at 501-40 feet, and Clyde V. Sparks and others' No. 1 Anna Nolte lot, 50 bbls. at 502-45 feet.

There are close to 50 strings of tools working in the Dupo Field and as fast as a well is brought in the tools are moved to other locations. Thousands of people from St. Louis visit it on Sundays to get a view of the field, which is just a short distance east of the Mississippi River.

EASTERN FIELDS

(Continued from Page 70)

has started to drill on the R. M. Narshall farm.

On the Clyde Amos farm, in DeKalb district, Gilmer County, C. B. Lewis & Co. are rigging up. In the same district, the Hope Construction & Refining Co. is rigging up on the Wilt heirs' farm. In the same district the Harriet Gainer Oil & Gas Co. is building a rig on the Spencer Collins heirs' farm. In the same district, the White Pine Oil & Gas Co. has part of the rig material at a location on the H. A. Gainer farm. In Sherman district, Calhoun County, the Sycamore Fuel Co. is building a rig on the R. L. Stump farm. J. B. Kingrey has started to drill on the Nettie Browning farm in Sheridan district, Lincoln County. In McComas district, Cabell County, the West Virginia Gas Corp is drilling on the Irvin Morrison farm. In Washington district, Boone County, the Owens Bottle & Machine Co. has rigs up on the F. T. Miller and E. L. Barker farms. In Curry district, Putnam County, the Penn Natural Gas Co. has made a location on the H. J. Miller farm. In Washington district, Boone County, the Riverhead Gas Co. is drilling on the William R. Nelson heirs' farm. In Harris district, Wood County, the Heck Oil Co. has started to drill on W. W. Smith farm.

SOUTHEAST OHIO

In Fallsbury Township, Section 2, Licking County, the Murphy Petroleum Co. completed in the Clinton sand No. 3 on the J. W. Little farm. It is a 10-bbl. pumper.

In the southeast quarter of Section 18, Harrison Township, Perry County, the Famous Oil & Gas Co. and others completed in the Clinton sand a test on the A. Cannon farm, good for 1,000,000 feet. In the southeast quarter of Section 19, same township, the Ohio Fuel Gas Co. completed a duster in the Clinton sand on the Alexander Brown farm.

Washington and Stark Counties

In Section 14, Lawrence Township, Washington County, the First National Bank completed in the first Cow Run sand No. 65 on the J. D. Lehmer farm. It is a very light pumper. In Section 13, same township, D. S. Boyle & Co. completed No. 8 on the J. W. Dennis farm. It is dry in the first Cow Run sand. In the corporate limits of Alliance, Stark County, the Hill Top Oil Co. completed in the Berea grit No. 4 on the F. A. Hoiler farm. It is a 10-bbl. pumper.

In the village of Hanover, Section 14, Hanover Township, Licking County, the Hope Construction & Refining Co. completed a second test on the H. Evans farm. It produced 60 bbls. the first 24 hours after completed and shot. In the northwest quarter of Section 24, Pike Township, Coshocton County, the Pure Oil Co. completed and shot in the same formation No. 3 on the Mary E. Anderson farm. It produced 54 bbls. the first 24 hours.

On Whipple Run, Section 197, Fearing Township, Washington County, Chris Lauer completed No. 9 on his own farm. It is a 5-bbl. pumper in the Peeker sand. In Franklin Township, Monroe County, Thornbury & Co.'s No. 3 on the C. H. Hines farm is a gasser in the Berea grit. In this and Bethel Township, there are three wells drilling down to the Squaw sand.

Monroe County

In Franklin Township, Monroe County, the Shay, McMullin Co. completed in the Berea grit No. 4 on the I. B. Wilson farm. It is a 2-bbl. pumper. In Section 35, Bethel Township, the Southern Oil Co.'s No. 18, on the Theeresa Hercher farm, is a 3-bbl. pumper in the Big Injun sand.

In the northwest quarter of Section 18, Hopewell Township, Muskingum County, the Midland Oil Co.'s second test on the Ella M. Denny & Co. farm is dry in the Clinton sand. In Section 5, Jefferson Township, Noble County, J. H. Richardson & Co. have a very light pumper on the William Wiper heirs' farm. In Section 35, Olive Township, Albert Miller and others have a light pumper in the 300-foot sand at No. 8 on the Herman Williams farm. In Section 15, Elk Township, R. L. Smithberger has completed a gasser on the Joseph R. Noll farm.

In Marion Township, Morgan County, the Skipton Farm Oil Co. has a duster on the Belinda Schofield farm. In the same township, Charles Woodyard & Co.'s second test on the Mary Hollowell farm is a very light pumper in the first Cow Run sand.

Meigs County

In the northeast quarter of Section 17, Sutton Township, Meigs County, C. R. Miller & Co. completed in the Cow Run sand No. 3 on the W. B. Cross farm. It is a 4-bbl. pumper. In Chester Township, O. L. Barneby completed No. 7 on the Licinda Genheimer farm. It is a 5-bbl. pumper in the Berea grit.

In Section 50, North Township, Harrison County, the Mitchell Smylie Oil Co. completed in the Berea grit a second test on the A. J. Crawford farm. It is a very light pumper.

In Section 8, Bethel Township, Monroe County, F. O. Parks & Co. are drilling on the Lena Webb farm. In Section 20, Harrison Township, Perry County, the Ohio Fuel Gas Co. is drilling on the W. E. Brown farm. In Section 18, the Famous Oil & Gas Co. and others are drilling on the A. Cannon farm. McClay Brothers & Co. are due in the Clinton sand on the Karl Brown farm. H. F. Athey and others are due in the same formation on the Laveler farm. In Section 17, Harrison Township, the Bloomingville Oil & Gas Co. and others have the rig completed for a second test on the James May farm. In Perry Township, Hocking County, William Spangler has started to drill on the Henry Wagner farm.

SOUTHWEST PENNSYLVANIA

In Perry Township, Greene County, the Peoples Natural Gas Co. has drilled down from the Big Injun sand to the Bayard sand, No. 1 on the Joshua Pyles farm. It is good for 10 bbls. a day in the lower formation. It was formerly a gasser in the Big Injun. In Whitley Township, same county, the same company has drilled a second test on the John Lantz farm to a total depth of 3,200 feet. It is dry and abandoned.

In Dunkard Township, Greene County, the Equitable Gas Co. has completed a test on the Jasper Williams farm. It is dry and abandoned. In the same township, J. L. Garard & Co. completed No. 16 on the E. South farm. It is a duster and has been abandoned. In Greene Township, Jesse L. Garard completed in the Dunkard sand a test on the H. K. Barb farm. It is dry and abandoned.

In Richhill Township, Greene County, the Manufacturers Light & Heat Co. completed No. 3,329 on the W. B. and E. V. Hicks farm. It is a gasser in the Bayard sand.

PROMINENT KENTUCKY OPERATORS SHOW FAITH IN GREENVILLE AREA

By Whit

GREENVILLE, Ky., Sept. 14.—What looks like the best bet for another large and productive oil field in western Kentucky, is centralized in Muhlenberg and Hopkins County, where a structure over 20 miles long extends far into Hopkins County from Muhlenberg County, and is among the largest structures in that part of Kentucky. The Muhlenberg end of the structure that is attracting such wide attention was discovered by the Ohio Oil Co. on the Kennedy farm, a short distance south of Greenville, which has become one of the busy spots during the past 60 days. Oil men are inclined to believe that the structure in which oil is being found runs in a general southeast to northwest direction, and that it takes in part of the town of Greenville, and the territory immediately west, where a large block of leases has recently been acquired. The well which it is planned to put down on this block will demonstrate whether or not this theory is correct.

Up to the present nine wells have been drilled in the Greenville Field, and eight of these have produced oil, the Wood Oil Co., drilling on the R. B. Shaver farm, just east of Greenville, getting the only absolutely dry hole. A good showing of oil was found in E. M. Treat and others' well on the Finis Martin farm, at a depth of 1,260 feet, although the well was abandoned. This is a fine showing particularly for a new field, and is very encouraging to all those concerned.

The following companies or operators are now in the field: The Ohio Oil Co., Wood Oil Co., E. M. Treat & Co., James C. Ellis, L. C. Young, A. L. Smith, W. P. Hurst, George L. Snyder, Missouri-Kansas Pipe Line Co., and the Cumberland Petroleum Co., as well as the Staves Drilling Co.

Altogether, many thousands of dollars already have been paid to the farmers in the south end of the county for leases and royalties. Many debts of long standing have been cancelled, mortgages cleared from farms and homes, and as a result of this a more optimistic feeling has come to prevail among the citizens of the whole county.

Oil men new to the field are coming in daily, and as all the acreage in the proven territory is now under lease, the new-comers find they must go into wildcat territory if they are to find a place where they can start operations.

The biggest strike so far made in the Muhlenberg oil field came in August 1 when the well being drilled by James C. Ellis and L. C. Young on the Bradshear farm, about 1 mile south of Greenville, blew in a gusher, at a depth of 1,682 feet. When the well came in, oil was blown over the top of the derrick, and the flow continued in an uninterrupted manner for more than two hours, before the well could be controlled, and much oil was lost. Oil men who were present at the time, and who kept a careful check on the well, say it flowed at the rate of 50 bbls. an hour.

Muhlenberg Data

The Ohio Oil Co. has 30,000 acres under lease in Muhlenberg, Hopkins and Christian Counties. The company is now drilling a deep test on the Barnhill farm, 3 miles southeast of White Plains, in Hopkins County. This is on the same structure as the new field in Muhlenberg County and on the southwest trend. The Ohio Oil Co. is shipping several more strings of tools to this field.

The production comes from the McCloskey sand, which so abundantly produced in Lawrence County, Illinois, and is found in the new field at a depth varying from 1,623 to 1,665 feet.

The Missouri-Kansas Pipe Line Co. is drilling to the east of Greenville on the Volney Fortney farm and is experiencing some minor trouble with a cave at 1,200 feet.

E. M. Treat and others are drilling on the Jim Bandy farm at a depth of 840 feet. This farm joins the "Bradshear" on the north.

Jim Ellis got a 150-bbl. producer on the Preacher Woodson farm. The mineral right is held by the Rice Brothers of Greenville, Ky. He is starting another well on this farm and has built powers for pumping the wells on the Bradshear and Preacher Woodson properties. He is also drilling an offset on the J. B. Dukes farm of 58 acres. The Ohio Oil Co. is drilling an offset to the Preacher Woodson or Rice Brothers' well on the R. L. Kennedy farm of 87 acres.

The Ohio Oil Co. is drilling an offset to the big Bradshear well to the south on the R. O. Kennedy farm, and Jim Ellis is drilling an offset to the east on the Ed Tett farm.

George H. Snyder of Hopkinsville, Ky., is rigging up on the Arch Parker 14-acre tract. This tract is the second farm to the northeast of the Bradshear leases.

The Ohio Oil Co. will soon drill on the Sonny Tutt farm of 115 acres which is about 3 miles east of the present production.

The McCloskey sand oil is a green crude, high in gravity and low in sulphur content.

Ohio Oil's Wildcat

Another test of importance now pending and soon to be drilled will be that of the Ohio Oil Co. on the Mansfield Fulkerson farm in the close vicinity of Depot, Ky. This is fully 5 miles to the northwest of the new field and present production. The test will be watched with great interest when drilled as the Ohio Oil Co. has about 6,000 acres leased in a block and also has the bulk of the acreage extending southeast to the new field and present production.

The Ohio Oil Co. has moved its field offices from Madisonville to Greenville.

Two pipe lines and loading racks are established in the field. The Ohio Oil Co. or Illinois Pipe Line Co. has about 4 miles of 2 and 3-inch line running from the field to Luzerne, Ky., on the Illinois Central where it maintains a five-car loading rack.

James C. Ellis, or the Producers Pipe Line Co., has about 5 miles of 2-inch line running from the farthermost Preacher Woodson well by the Bradshear into Luzerne, Ky., where he also maintains a five-car loading rack. He will build a storage tank of several thousand barrels reserve adjacent to the railroad at the terminal or discharge end of this line.

E. M. Treat, a prominent eastern producer, holds leases on 7,000 acres. A. L. Smith of Ohio holds leases on over 3,000 acres favorably located throughout the field. E. M. Treat and A. L. Smith together own the lease on the Robert land of 2,640 acres. This lease gives promise as it lies only 1,500 feet south of the Preacher Woodson or Rice Brothers' productive property. This large tract of land is owned by Otto A. Robert, secretary of the Filson Club, Louisville, Ky.

The section just west and southwest of Bancroft, which lies to the southwest of Greenville, gives considerable encouragement for shallow sand production. A test in that section will be watched with interest as there is shallow production to the west and nothing drilled to condemn it.

The Ohio Oil Co. contemplates moving in another big standard drilling rig, which will be placed to the south of Greenville.

May Use Standard Rig

According to reports Paul Dahgren, who owns the big 84-foot standard rig used to drill a deep test near Owensboro on the Jennie Wilson 1,300 acres in Daviess County, will move this outfit to the property of the W. A. Wickliff Coal Co.'s property, 10 miles east of Greenville, and a short distance east of Drakesboro, where it will be set up and drilling started.

The Ohio Oil Co., which brought in the initial producer in the Greenville Field, No. 1 R. O. Kennedy, has completed and now has in operation a power station pumping Nos. 1 and 2 on the R. O. Kennedy farm, which are producing by daylight at the rate of 100 bbls. each, and sending the oil by pipe line to Luzerne.

Nelly Naught, nearly known at High, New Mexico says: "THERE AIN'T NO TOOLS LIKE GUIBERSON'S"

Class! Gosh all hemlock! You said it! And when it comes to knowing what she wants, "there ain't no gal like Nell."

"But about them tools," says her pa, "Nell's been listenin' to them driller fellers, workin' over in the north pasture. An' I sez to her, Nell, sez I, ye can believe what they sez about them tools, but jes don't ye go no further."

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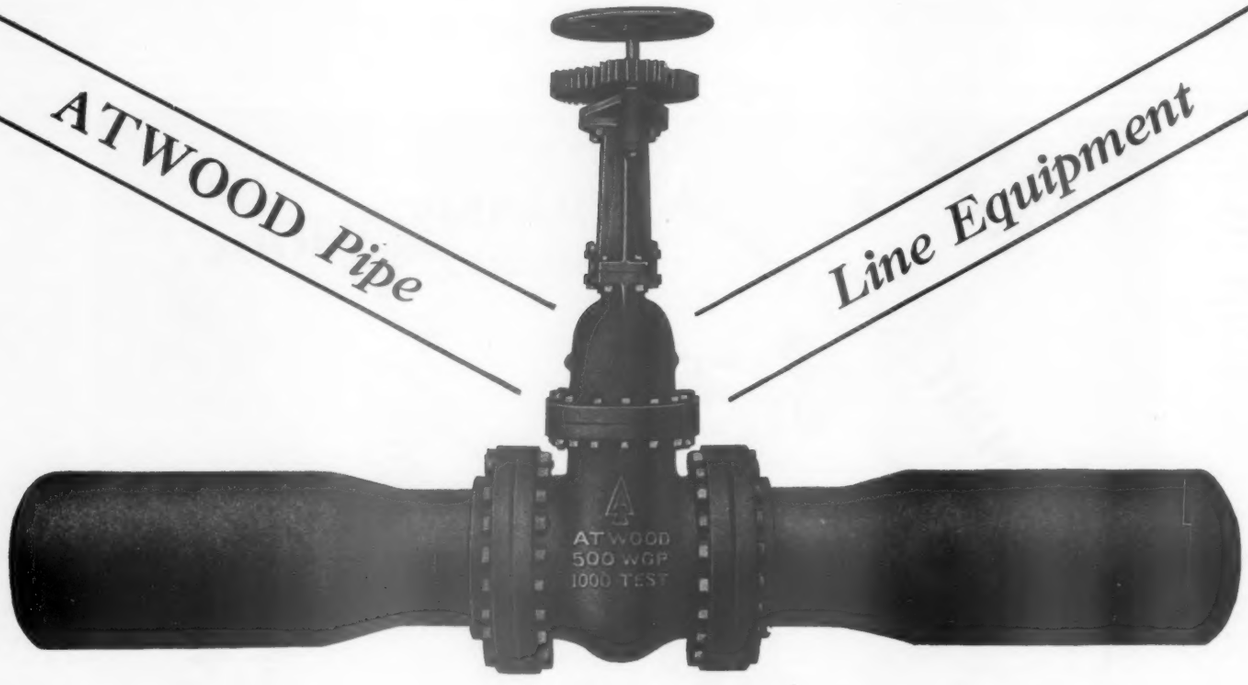

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PETROLEUM, PETROLEUM PRODUCTS, AND NATURAL GASOLINE, JULY, 1929

Prepared under the supervision of G. R. Hopkins, Petroleum Economics Division. E. B. Swanson, acting chief chemist.

Crude Petroleum

According to reports received by the Bureau of Mines, Department of Commerce, the production of crude petroleum in the United States during July, 1929, amounted to 91,327,000 bbls., a daily average of 2,946,000 bbls. This was the first time the monthly total has exceeded the 90,000,000-bbl. mark.

Daily average output in Texas in July was over 50,000 bbls. higher than in June and the State regained first place among the producing states. Nearly every district in Texas recorded increased output in July, that of West Texas being the most important. Both California and Oklahoma registered material gains in output in July, that of the former being due principally to developments at Santa Fe Springs, that of Oklahoma to new production at Seminole and in the increasingly important Oklahoma City Pool. Kansas produced 4,000,000 bbls. for the first month since August, 1918. Daily average production in the Appalachian district registered a material increase and approached the 100,000-bbl. mark.

The situation as regards crude stocks east of California experienced a complete reversal in July, when additions to storage amounted to 4,254,000 bbls., as compared with a small decrease the previous month. The major portion of this increase was recorded in Mid-Continent tank-farm stocks. Stocks of crude held by refiners increased about 800,000 bbls. during the month, despite withdrawals from stocks of foreign crude. Stocks of both light and heavy crudes continued to increase in California, the total accumulation for July amounting to 3,749,000 bbls.

Total stocks of all oils on July 31 amounted to 666,962,000 bbls., a new high mark. This represents an increase over June of 6,537,000 bbls. as compared with a decrease in July, 1928, of 3,687,000 bbls.

Refined Products

An effort at curtailment by refiners was evidenced in July, when the daily average throughput of crude petroleum was 2,772,000 bbls. as compared with 2,813,000 bbls. in June.

Gasoline production again rose to a new peak in July, when the daily average was 1,221,000 bbls. as compared with 1,187,000 bbls. in June. The July figure represents an increase over the previous year of 15 per cent. The consumption of gasoline also reached a new peak, the daily average indicated domestic demand for July of 1,189,000 bbls. being an increase over July, 1928, of 13 per cent. Exports of gasoline passed 6,000,000 bbls. for the first time. Stocks of gasoline showed the influence of the heavy total demand and declined from 41,991,000 bbls. on the first of the month to 37,880,000 bbls. on July 31. At the current rate of total demand, this figure represents 27 days' supply as compared with 32 days' supply on hand a month ago and 25 days' supply on hand a year ago.

The daily average production of kerosene decreased but exports also were lower and stocks increased. Stocks of gas oil and fuel oil east of California continued to increase rapidly as demand remained at a relatively low level. The indicated domestic demand for lubricants was lower but exports increased and the downward trend in stocks was continued. The production of wax declined materially and the increase in stocks was less than for some time.

The refinery data of this report were compiled from schedules of 346 refineries which had an aggregate daily recorded crude oil capacity of 3,430,000 bbls. These refineries operated during July at 81 per cent of their recorded capacity given above, as compared with 343 refineries operating at 83 per cent of their capacity in June.

Statistics of Important Fields, July, 1929

All of the leading fields covered regularly in the following analysis recorded increases in output in July. Daily average production in West Texas gained 31,000 bbls. over June and rose above 400,000 bbls. for the first time. The older districts of the Greater Seminole area continued to hold up well and the new production was sufficient to increase the daily output to 424,000 bbls. from 409,000 bbls. in June. The Long Beach Field showed a slight gain in daily average production over June but this required more than twice as many completions. Production at Santa Fe Springs continued to climb to new peaks in July, when the daily average amounted to 262,000 bbls.

Stocks at Seminole were practically unchanged from June, amounting to 18,766,000 bbls. on July 31, as compared with 18,740,000 the month previous.

Of more than passing interest from the standpoint of wells was the large number of dry holes—40—drilled in the Seminole area in July. This was more than three times the June figure. However, the average size of the successful completions in July at Seminole was much larger than in June. No indications of a cessation in drilling is to be found in the figures of drilling wells as of July 31, the four fields given below having 772 wells underway as compared with 733 the month previous.

PRODUCTION AND GRAVITY (A.P.I.)

(Barrels of 42 U. S. gallons)

	July, 1929		June 1929		July, 1928		Average
	Total	Dly. av.	Total	Dly. av.	Total	Dly. av.	gravity
Seminole, St. Louis, etc.	13,134,000	424,000	12,262,000	409,000	8,121,000 1,134,000	262,000 37,000	39.0 40.0
West Texas	12,676,000	409,000	11,335,000	378,000	11,284,000	364,000	30.0
Long Beach*	5,387,000	174,000	5,071,000	169,000	6,078,000	196,000	26.0
Santa Fe Springs*	8,135,000	262,000	7,124,000	237,000	1,137,000	37,000	33.0

*From American Petroleum Institute.

STOCKS AT SEMINOLE-ST. LOUIS, ETC.

(Barrels of 42 U. S. gallons)

	July, 31, 1929	June 30, 1929	July 31, 1928*
Producers' stocks	561,000	584,000	371,000
Tank-farm stocks	18,205,000	18,156,000	17,018,000
Total stocks	18,766,000	18,740,000	17,389,000

*Includes stock at Seminole only.

RECORD OF WELLS, JULY, 1929*

	Completions			Total initial production (bbls.)	Average initial production (bbls.)	Drilling July 31
	Oil	Gas	Dry			
Seminole, St. Louis, etc.	78	12	40	99,900	1,300	281
West Texas	36	..	25	44,700	1,200	245
Long Beach	23	..	1	21,400	930	87
Santa Fe Springs	23	..	..	88,200	3,800	159

*From The Oil and Gas Journal.

(Continued on Next Page)

A STRONG, PORTABLE BENCH

The "TOLEDO" No. 9 portable work bench and chain vise is the perfect pipe vise for holding all pipe from 2" to 12", very strong and rigid and practically indestructible. The chain vise of special design is adjustable so that a single downward thrust of the lever grips the pipe tight. The "TOLEDO" No. 9 is a work bench that will give years of satisfactory service.

THE TOLEDO PIPE THREADING MACHINE CO.
TOLEDO, OHIO NEW YORK OFFICE, 72 LAFAYETTE ST.

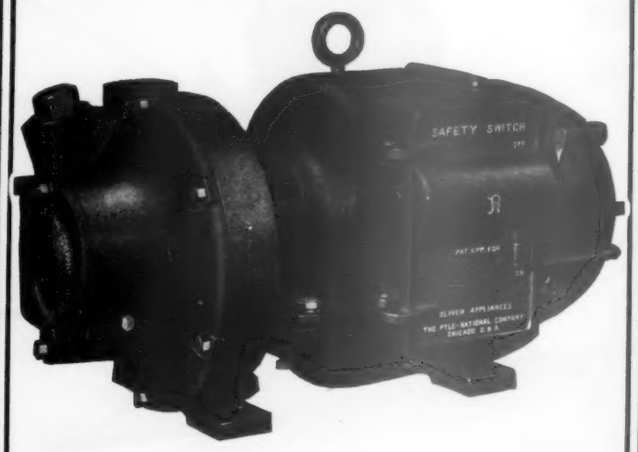
"TOLEDO"

YOU WILL FIND NONE FINER THAN A GENUINE "TOLEDO"

CHICAGO PNEUMATIC TOOL COMPANY has found a better way to drill straight holes, and

The Cost of Drilling Oil Wells is going to take a Drop!

See HOW and WHY at Booth No. 71, International Petroleum Exposition, Tulsa, October 5-12.



Uniform light with fluctuating steam pressure

UNIFORM light even with fluctuating steam pressure is delivered by Pyle-National M-2-S rig lighting units. The M-2-S turbo-generator maintains the exact rated voltage on pressures ranging from 200 lbs. down to 80 lbs. without adjustment. Steam consumption is kept to a minimum, the governor automatically cuts down the steam to that needed to carry the load.

Operating records during years of service in the oil fields have proved that this unit is unsurpassed for steadiness, dependability, and economy of lighting.

Bulletins giving complete information on request.

The Pyle-National Company

1334-1358 N. Kostner Avenue
Chicago, Ill., U. S. A.

Direct Factory Representative:

ALEX JOHNSON, 1000 Marine Bank Bldg., Houston, Texas

O&GJ 9-19 Gray

ANALYSIS OF SUPPLY AND DEMAND OF ALL OILS

(Including wax, coke, and asphalt in thousands of barrels of 42 U. S. gallons)

	July, 1929	June, 1929*	July, 1928	Jan.-July, 1929	Jan.-July 1928†
NEW SUPPLY:					
Domestic production:					
Crude petroleum:					
Light	82,878	75,390	67,746	522,344	455,918
Heavy	8,449	8,013	7,838	57,098	55,898
Total crude	91,327	83,403	75,584	579,442	511,816
Natural gasoline	4,417	4,250	3,436	29,317	23,971
Benzol	264	257	229	1,790	1,608
Total production	96,008	87,910	79,249	610,549	537,395
Daily average	3,097	2,930	2,556	2,580	2,523
Imports:					
Crude petroleum	6,122	6,591	7,878	49,974	46,069
Refined products	3,176	2,426	782	14,249	7,690
Total new supply all oils	105,306	96,927	87,909	674,772	591,154
Daily average	3,397	3,231	2,836	3,183	2,775
Increase in stocks all oils	6,537	5,504	‡3,687	53,758	22,071
DEMAND:					
Total demand	98,769	91,423	91,596	621,014	569,083
Daily average	3,186	3,047	2,955	2,929	2,672
Exports:§					
Crude petroleum	3,117	2,615	1,669	14,612	10,342
Refined products	12,358	12,383	12,731	78,047	82,376
Domestic demand	83,294	76,425	77,196	528,355	476,365
Daily average	2,687	2,548	2,490	2,492	2,236
Excess of daily average domestic production over domestic demand	410	382	68	388	287
STOCKS (end of month):					
Crude petroleum:					
Pipe-line, tank-farm, and refinery:					
East of California	383,343	379,089	369,474	383,343	369,474
California¶	140,076	136,327	113,878	140,076	113,878
Total crude	523,419	515,416	483,352	523,419	483,352
Natural gasoline at plants	1,156	1,356	476	1,156	476
Refined products	142,387	143,653	128,440	142,387	128,440
Grand total stocks all oils	666,962	660,425	612,268	666,962	612,268
Days' supply‖	209	217	207	228	229
Bunker oil (included above in domestic demand)	4,593	*4,544	4,116	30,406	29,628

*Revised. †Final figures. ‡Decrease. §Includes shipments to Alaska, Hawaii, and Porto Rico. ¶Includes fuel oil in California. ‖Grand total stocks all oils divided by daily average total demand.

STOCKS OF CRUDE PETROLEUM HELD IN THE UNITED STATES

AT REFINERIES (and in coastwise transit thereto). Reported by location of storage:		July 31, 1929	June 30, 1929	July 31, 1928*
East Coast: Domestic		9,292,000	8,202,000	8,698,000
Foreign		4,910,000	5,382,000	5,349,000
Appalachian		2,723,000	2,591,000	2,186,000
Indiana, Illinois, Kentucky, etc.		3,119,000	2,945,000	3,053,000
Oklahoma, Kansas and Missouri		6,271,000	6,216,000	5,688,000
Texas: Inland		1,753,000	2,578,000	1,863,000
Gulf Coast: Domestic		10,512,000	9,802,000	8,152,000
Foreign		397,000	533,000	150,000
Arkansas and inland Louisiana		1,511,000	1,402,000	840,000
Louisiana Gulf Coast: Domestic		4,160,000	3,975,000	4,462,000
Foreign		1,530,000	1,649,000	1,194,000
Rocky Mountain		1,933,000	2,028,000	1,440,000
Total east of California		48,111,000	47,303,000	43,075,000
ELSEWHERE THAN AT REFINERIES:				
Domestic—Reported by field of origin:				
Appalachian:				
New York, Pennsylvania, West Virginia, Eastern and Central Ohio	Gross	4,834,000	4,930,000	6,202,000
	Net	4,551,000	4,652,000	5,910,000
Kentucky	Gross	976,000	922,000	1,267,000
	Net	834,000	778,000	1,139,000
Lima-Indiana	Gross	915,000	953,000	1,513,000
	Net	732,000	770,000	1,333,000
Illinois-Southwest Indiana	Gross	11,273,000	11,525,000	12,551,000
	Net	10,615,000	10,868,000	12,049,000
Mid-Continent:				
Oklahoma, Kansas, Panhandle, Central, North and West Texas	Gross	263,194,000	259,206,000	247,487,000
	Net	250,403,000	246,402,000	235,087,000
Northern Louisiana and Arkansas	Gross	26,851,000	26,879,000	29,816,000
	Net	23,074,000	23,148,000	26,621,000
Gulf Coast	Gross	21,047,000	21,197,000	17,689,000
	Net	20,473,000	20,643,000	17,235,000
Rocky Mountain	Gross	24,378,000	24,349,000	26,984,000
	Net	24,328,000	24,311,000	26,943,000
Total pipe line and tank farm stocks east of California	Gross	353,468,000	349,961,000	343,509,000
	Net	335,010,000	331,572,000	326,317,000
Foreign crude petroleum on Atlantic Coast		85,000	60,000	40,000
Foreign crude petroleum on Gulf Coast		137,000	154,000	42,000
		222,000	214,000	82,000
TOTAL refinery, pipe line and tank farm stocks of domestic and foreign crude petroleum east of California		383,343,000	379,089,000	369,474,000
CLASSIFICATION BY GRAVITY (approximate):				
East of Californ'a:				
Light crude (24 degrees and above)		339,438,000	333,102,000	318,087,000
Heavy crude (below 24 degrees)		43,905,000	45,987,000	51,387,000
California: Light (20 degrees and above)		34,430,000	32,667,000	18,215,000
Heavy (including fuel)		105,646,000	103,660,000	95,663,000
PRODUCERS' STOCKS (not including above, approx.):				
East of California		6,550,000	†6,700,000	6,946,000
California		194,000	573,000	(‡)

*Final figures. †Revised. ‡Not available.

IMPORTS AND EXPORTS OF CRUDE PETROLEUM (Barrels)

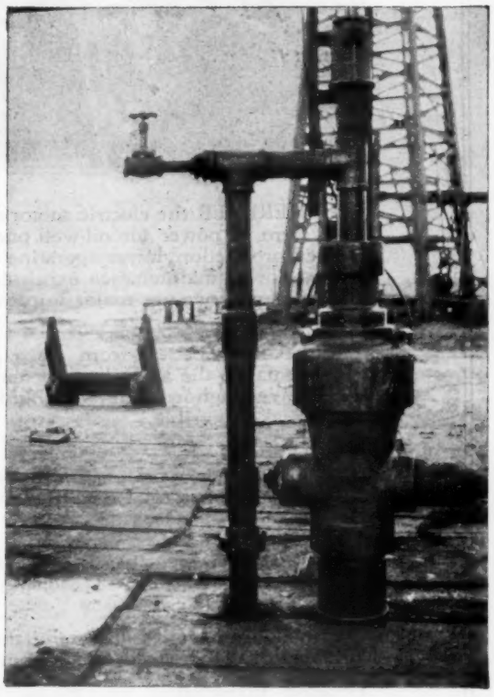
(From Bureau of Foreign and Domestic Commerce)

	July, 1929 Total	July, 1929 Dy. av.	June, 1929 Total	June, 1929 Dy. av.	Jan.-July, 1929	Jan.-July, 1928*
Imports	6,122,000	197,500	6,591,000	219,700	49,974,000	46,069,000
From Mexico	1,234,000	39,800	1,624,000	54,100	7,151,000	26,757,000
From Venezuela	3,973,000	128,200	4,186,000	139,600	33,835,000	10,147,000
From Colombia	792,000	25,500	637,000	21,200	7,154,000	7,635,000
From other countries	123,000	4,000	144,000	4,800	1,834,000	1,530,000
Exports	3,117,000	100,500	2,615,000	87,200	14,612,000	10,342,000
Domestic crude oil:						
To Canada	2,872,000	92,600	2,248,000	74,900	12,238,000	8,175,000
To other countries	245,000	7,900	362,000	12,100	2,367,000	2,166,000
Shipments	.....	.....	5,000	200	7,000	.....
Foreign crude oil	.....	.....	.....	.....	.....	1,000

*Final figures.

(Continued on Next Page)

See This Hook-Up At Our Exhibit



McEvoy installation—T. G. Shaw Oil Co., Pierce Junction

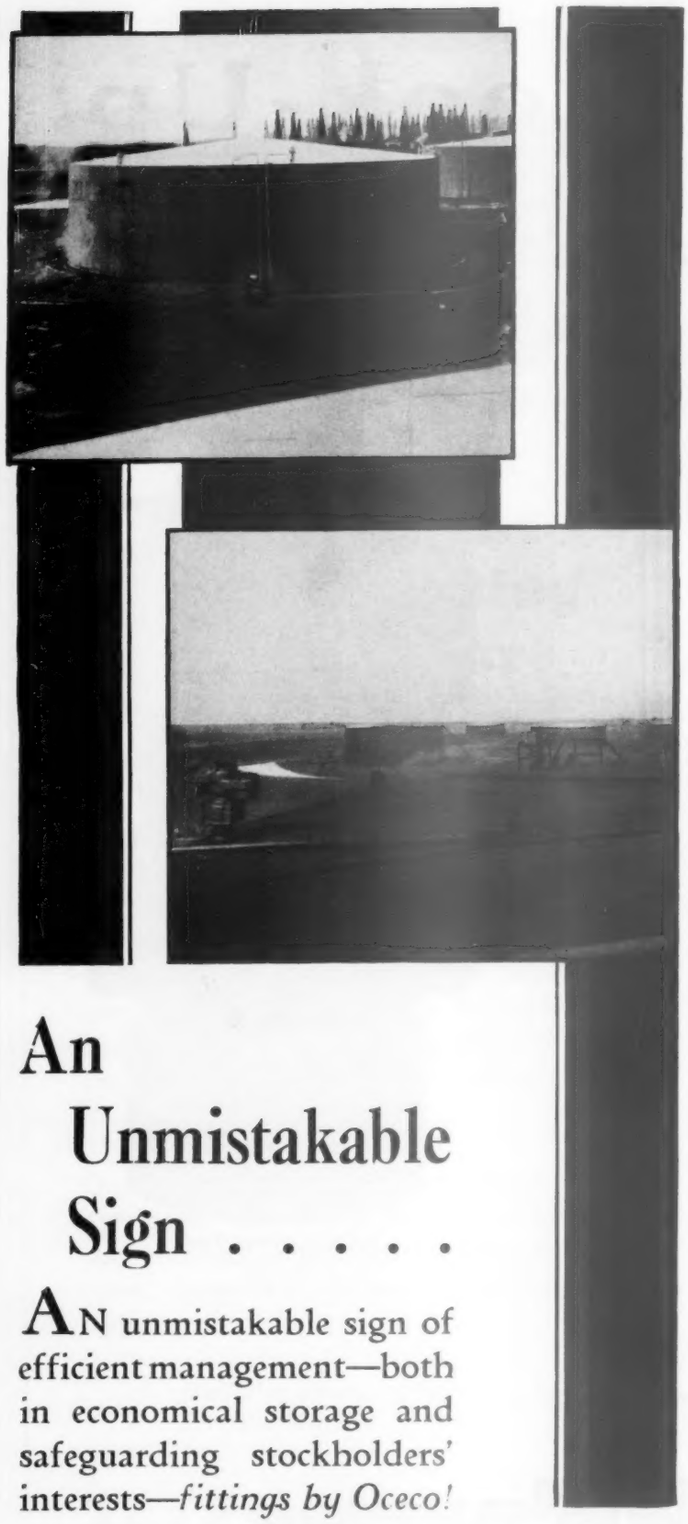
McEvoy Universal Head

After the McEvoy Head is used for "drilling in," slips, body cap, and stuffing box are mounted, making a complete hook-up for flowing or pumping well.

J. H. McEVOY & COMPANY

HOUSTON, TEXAS, U.S.A.

Pacific Coast Branch: McEVOY SCREEN PIPE CO., 2428 E. 56 St., Los Angeles, Calif.



An Unmistakable Sign . . . . .

AN unmistakable sign of efficient management—both in economical storage and safeguarding stockholders' interests—*fittings by Oceco!*

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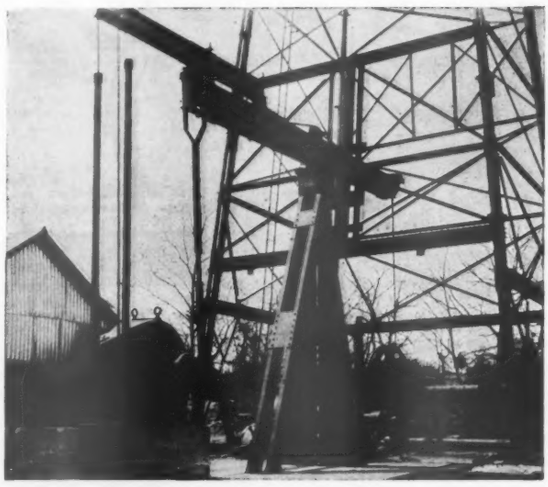
877 Addison Road Cleveland, Ohio

Engineering and Sales Service:

25 Broadway, New York
Box 552, Beaumont, Texas
Tulsa Trust Bldg., Tulsa, Okla.
Neilan, Schumacher & Co., Los Angeles, Cal.

Westinghouse-Nuttall

Reduction Gears *add to the advantages of electrified production*



WHEREVER the electric motor replaces any other form of power for oil-well pumping service, increased production, lower operating costs, fewer shutdowns, lower maintenance expenses, and more efficient performance are major improvements that inevitably follow.

The maximum benefit from electric operation, however, demands the additional betterments which the use of Westinghouse-Nuttall double reduction gear drives makes possible.

Briefly, these are:

Direct drive—no countershaft or bandwheel necessary.
Compactness—one-tenth as much housing space required,
Dependability and long life.
Highly efficient delivery of power.
Negligible upkeep—only occasional oiling.
Adaptability to varying well conditions.
Improved working conditions.

Westinghouse-Nuttall double-reduction gear drives are for use with all two-speed, oil well pumping motors.

Detailed information on Westinghouse-Nuttall oil well units may be obtained from any branch of the Oil Well Supply Co., located in all oil fields, or from any Westinghouse Sales Office.

WESTINGHOUSE ELECTRIC & MFG. CO.
NUTTALL WORKS PITTSBURGH, PA.
SALES OFFICES AND SERVICE SHOPS IN ALL PRINCIPAL CITIES OF UNITED STATES
CANADIAN AGENTS: LYMAN TUBE & SUPPLY CO.

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Westinghouse

Arc-welders
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Capacitors
Change House Heaters
Circuit-breakers
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Gears
Heat Exchangers
Insulating Materials
Lighting Equipment
Lightning Arresters
Mazda Lamps
Motors and Control
Panelboards
Rig Lighter Sets
Safety Switches
Speed Reducers
Transformers
Twin-motor Drilling Equipment
Two-speed Pumping Equipment
Vapor-proof Lighting Fixtures

PRODUCTION OF CRUDE PETROLEUM BY FIELDS AND STATES WITH CLASSIFICATION BY GRAVITY

(Barrels of 42 U. S. gallons)

	July, 1929 Total	July, 1929 Daily Av.	June, 1929 Total	June, 1929 Daily Av.	Jan.-July 1929	Jan.-July 1928*
FIELD:						
Appalachian	3,021,000	97,500	2,664,000	88,800	18,848,000	17,974,000
Lima-Indiana	165,000	5,300	152,000	5,100	911,000	1,016,000
Michigan	623,000	20,100	478,000	15,900	1,924,000	279,000
Ill.-S. W. Ind.	630,000	20,300	586,000	19,500	4,177,000	4,324,000
Mid-Continent	53,319,000	1,720,000	48,406,000	1,613,500	339,509,000	311,946,000
Gulf Coast	4,505,000	145,300	4,326,000	144,200	30,421,000	26,659,000
Rocky Mountain	2,267,000	73,100	2,166,000	72,200	14,870,900	† 16,959,000
California	26,797,000	864,400	24,625,000	820,900	168,782,000	132,649,000
U. S. total	91,327,000	2,946,000	83,403,000	2,780,100	579,442,000	511,816,000
STATE:						
Arkansas	2,098,000	67,700	2,044,000	68,100	15,415,000	19,067,000
California	26,797,000	864,400	24,625,000	820,900	168,782,000	132,649,000
Colorado	215,000	6,900	215,000	7,200	1,442,000	1,651,000
Illinois	559,000	18,000	515,000	17,200	3,641,000	3,803,000
Indiana	77,000	2,500	78,000	2,600	575,000	585,000
Southwestern	71,000	2,300	71,000	2,300	536,000	531,000
Northeastern	6,000	200	7,000	300	39,000	54,000
Kansas	4,329,000	139,600	3,791,000	126,400	24,143,000	23,594,000
Kentucky	710,000	22,900	546,000	18,200	4,130,000	4,238,000
Louisiana	1,656,000	53,400	1,590,000	53,000	11,458,000	12,870,000
Gulf Coast	567,000	18,300	557,000	18,600	4,117,000	3,839,000
Rest of State	1,089,000	35,100	1,033,000	34,400	7,341,000	9,031,000
Michigan	623,000	20,100	478,000	15,900	1,924,000	279,000
Montana	264,000	8,500	262,000	8,700	1,921,900	2,358,000
New Mexico	107,000	3,500	86,000	2,900	601,000	512,000
New York	301,000	9,700	282,000	9,400	1,911,000	1,389,000
Ohio	647,000	20,900	573,000	19,100	3,920,000	4,208,000
Cent. & East.	488,000	15,800	428,000	14,300	3,048,000	3,246,000
Northwestern	159,000	5,100	145,000	4,800	872,000	962,000
Oklahoma	22,682,000	731,700	20,688,000	689,600	149,786,000	137,036,000
Osage County.	1,283,000	41,400	1,192,000	39,700	9,006,000	12,360,000
Rest of State	21,399,000	690,300	19,496,000	649,900	140,780,000	124,676,000
Pennsylvania	1,037,000	33,400	954,000	31,800	6,520,000	5,730,000
Tennessee	2,000	100	1,000	.....	13,000	27,000
Texas	27,059,000	872,900	24,619,000	820,600	169,128,000	146,038,000
Gulf Coast	3,938,000	127,000	3,769,000	125,600	26,304,000	22,820,000
Rest of State.	23,121,000	745,900	20,850,000	695,000	142,824,000	123,218,000
West Virginia	483,000	15,600	453,000	15,100	3,226,900	3,344,000
Wyoming	1,681,000	54,200	1,603,000	53,400	10,906,000	12,434,000
Salt Creek	938,000	30,200	913,000	30,400	6,500,000	8,405,000
Rest of State.	743,000	24,000	690,000	23,000	4,406,000	4,029,000
CLASSIFICATION BY GRAVITY (approx.):						
Light crude	82,878,000	2,673,500	75,390,000	2,513,000	522,344,000	455,918,000
Heavy crude	8,449,000	272,500	8,013,000	267,100	57,098,900	55,898,000

*Final figures. †Includes Alaska and Utah.

INDICATED DELIVERIES OF CRUDE PETROLEUM, EXCLUSIVE OF CALIFORNIA GRADES, TO DOMESTIC CONSUMERS (Barrels)

Domestic petroleum by fields of origin:	July, 1929 Total	July, 1929 Dy. av.	June, 1929 Total	June, 1929 Dy. av.	Jan.-July, 1929	Jan.-July, 1928*
Appalachian	3,066,000	98,900	2,811,000	93,700	18,978,000	18,274,000
Lima-Indiana	203,000	6,500	236,000	7,900	1,341,000	826,000
Michigan	623,000	20,100	478,000	15,900	1,924,000	280,000
Illinois and S. W. Indiana	883,000	28,500	846,000	28,200	4,929,000	4,459,000
Mid-Continent	49,392,000	1,593,300	47,155,000	1,571,800	331,780,000	297,504,000
Gulf Coast	4,675,000	150,800	4,064,000	135,500	28,220,000	27,399,000
Rocky Mountain	2,250,000	72,600	2,317,000	77,200	16,043,000	17,341,000
Deliveries and exports	61,092,000	1,970,700	57,908,000	1,930,200	403,215,000	366,077,000
Deliveries	58,703,000	1,893,700	56,088,000	1,869,600	393,297,000	359,190,000
Foreign petroleum	6,114,000	197,200	6,660,000	222,000	50,011,000	46,070,000
Deliveries of domestic and foreign petroleum	64,817,000	2,090,900	62,748,000	2,091,600	443,308,000	405,260,000

*Final figures.

NUMBER OF PRODUCING OIL WELLS COMPLETED*

July, 1929	1,420	January-July, 1929	8,499
June, 1929	1,316	January-July, 1928†	6,645
July, 1928	1,093		

*For states east of California from The Oil and Gas Journal; for California from the American Petroleum Institute. †Final figures.

COMPARATIVE ANALYSES

(Thousands of barrels of 42 U. S. gallons)

Crude petroleum—	Runs to stills Total	Runs to stills Dly. av.	Imports* Total	Imports* Dly. av.	Exports* Total	Exports* Dly. av.	Stks. end period	Dom. demand Total	Dom. demand Dly. av.
July, 1929	85,919	2,772	6,122	197	3,117	101	†417,773	.....	....
June, 1929	84,409	2,813	6,591	220	2,615	87	†411,756	.....	....
Jan.-July, 1929	566,765	2,673	49,974	236	14,612	69	†417,773	.....	....
July, 1928	80,602	2,600	7,878	254	1,669	54	†387,689	.....	....
Jan.-July, 1928	515,488	2,470	46,069	216	10,342	49	†387,689	.....	....
	Production Total	Production Dly. av.							
Gasoline—									
July, 1929	37,855	1,221	934	30	6,040	195	37,880	36,860	1,189
June, 1929	35,606	1,187	732	24	5,832	194	§41,991	§33,163	§1,105
Jan.-July, 1929	244,433	1,153	4,449	21	35,036	165	37,880	209,032	986
July, 1928	32,959	1,063	268	9	5,168	167	30,394	32,527	1,049
Jan.-July, 1928	207,924	976	2,514	12	31,023	146	30,394	182,337	856
Kerosene—									
July, 1929	4,406	142	15	..	1,288	42	8,797	2,684	87
June, 1929	4,928	164	15	1	1,790	60	8,348	2,547	85
Jan.-July, 1929	32,326	152	120	1	11,606	55	8,797	21,038	99
July, 1928	4,894	158	19	1	1,833	59	8,470	3,042	98
Jan.-July, 1928	34,266	161	125	1	13,184	62	8,470	20,392	96
Gas Oil and Fuel Oil—									
July, 1929	37,980	1,225	2,206	71	3,531	114	§145,721	.....	....
June, 1929	37,338	1,245	1,660	55	3,375	113	§140,992	.. ..	....
Jan.-July, 1929	260,046	1,227	9,574	45	21,992	104	§145,721	.....	....
July, 1928	36,934	1,191	484	16	4,261	137	§132,073	.....	....
Jan.-July, 1928	242,223	1,137	4,979	23	27,799	131	§132,073	.....	....
Lubricants—									
July, 1929	2,836	95	4	..	1,118	36	7,524	2,167	70
June, 1929	2,928	98	6	..	989	33	§7,869	§2,446	§82
Jan.-July, 1929	20,159	95	24	..	6,769	32	7,524	14,230	67
July, 1928	2,828	91	1	..	1,062	34	7,667	1,932	62
Jan.-July, 1928	20,214	95	7	..	6,891	32	7,667	13,523	63
Wax (thousands of lbs.)—									
July 1929	46,171	1,489	4,606	149	24,445	789	191,298	23,798	768
June, 1929	52,714	1,757	3,070	102	24,986	833	188,764	21,173	706
Jan.-July, 1929	375,928	1,773	21,781	103	166,308	784	191,298	150,447	710
July, 1928	45,273	1,460	2,226	72	35,290	1,138	84,476	19,722	636
Jan.-July, 1928	359,391	1,687	13,005	61	256,067	1,202	84,476	182,491	857

*From Bureau of Foreign and Domestic Commerce, subject to revision. Exports include shipments to Alaska, Hawaii, and Porto Rico. †Includes California light crude. ‡Revised. §Includes California heavy crude and fuel oil.

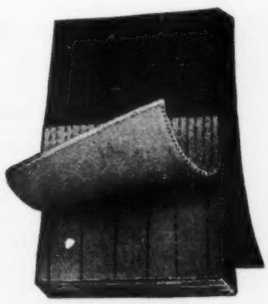
(Continued on Next Page)

FOR BEST RESULTS
use
PETROL PRODUCTS

THE PETROL ROTARY BELT PUNCH

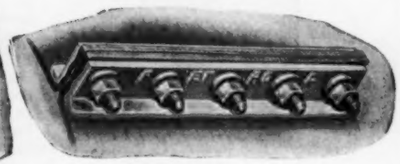
For accurate, easy and quick Punching of the Bolt Holes.

PETROL BELT
For Oil Well Drilling and Pumping



PETROL BELT CLAMPS

The most satisfactory clamp for joining Belting used in the oil fields.



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The Washington Derrick is the result of many years of practical experience combined with the knowledge of expert structural engineers. It is strong and rugged — fireproof — windproof — easily erected and easily removed to new location. An exclusive feature — double spliced joints — makes a socket that holds the legs while bolting up. Not only that, but it is the most nearly perfect structural steel derrick joint.

The Washington is not a cheap derrick but it is an economical one—first and last. Its purchase is an investment in long life, exceptional portability, reduced fire hazard and quick erection, dismantling and re-erection.

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UNDERWRITERS *of* NATURAL GAS SECURITIES

Inquiries Invited

ZWETSCH, HEINZELMANN & CO. Inc.

57 William Street New York, N.Y.

SHIPMENTS OF CALIFORNIA OIL THROUGH PANAMA CANAL TO EASTERN PORTS IN UNITED STATES (Barrels)

	July, 1929	June, 1929	July, 1928	Jan.-July, 1929	Jan.-July, 1928*
Crude oil	440,000	170,000	241,000	1,101,000	1,891,000
Refined products	2,501,000	1,753,000	2,206,000	14,423,000	11,603,000
Gasoline	2,346,000	1,598,000	1,745,000	12,666,000	9,034,000
Tops	.....	.....	95,000	.....	171,000
Kerosene	72,000	.....	.....	72,000	1,000
Gas oil	76,000	79,000	362,000	1,524,000	1,445,000
Fuel oil	4,000	3,000	2,000	70,000	711,000
Lubricants	1,000	71,000	1,000	79,000	227,000
Asphalt	2,000	2,000	1,000	18,000	14,000

*Final figures.

RUNS TO STILLS AND OUTPUT OF REFINERIES IN THE UNITED STATES, JULY, 1929

Input—	Crude oil—Domestic	Crude oil—Foreign	Unfinished oils rerun	Natural gasoline	Total input (bbls.)
East Coast	8,356,000	5,856,000	1,173,000	91,000	15,476,000
Appalachian	2,950,000	.....	140,000	48,000	3,138,000
Ind., Ill., Ky., etc.	9,832,000	.....	783,000	218,000	10,833,000
Okla., Kans., Mo.	10,083,000	.....	448,000	398,000	10,929,000
Texas	17,882,000	219,000	602,000	679,000	19,382,000
Louisiana and Arkansas	5,484,000	338,000	351,000	546,000	6,719,000
Rocky Mountain	2,316,000	.....	544,000	130,000	2,990,000
California	22,603,000	.....	*534,000	†1,695,000	24,832,000
Total United States	79,506,000	6,413,000	4,575,000	3,805,000	94,299,000
Daily average, 7/29	2,564,700	206,900	147,600	122,700	3,041,900
Daily average, 6/29	2,570,300	243,000	146,100	118,300	3,077,700
Texas Gulf Coast	12,607,000	219,000	467,000	521,000	13,814,000
Louisiana Gulf Coast	3,521,000	338,000	24,000	404,000	4,287,000

Output—	Gasoline (bbls.)	Kerosene (bbls.)	Gas oil and fuel oil (bbls.)	Lubricants (bbls.)	Wax (lbs.)
East Coast	4,553,000	651,000	7,186,000	890,000	17,242,000
Appalachian	1,377,000	313,000	593,000	462,000	7,032,000
Indiana, Illinois, Kentucky, etc.	5,857,000	460,000	3,140,000	329,000	4,157,000
Oklahoma, Kansas, Missouri	5,554,000	857,000	3,279,000	236,000	3,310,000
Texas	7,773,000	967,000	7,371,000	694,000	5,250,000
Louisiana and Arkansas	2,523,000	379,000	2,440,000	75,000	5,575,000
Rocky Mountain	1,399,000	161,000	613,000	54,000	3,605,000
California	8,819,000	618,000	13,358,000	196,000	.....
Total United States	37,855,000	4,406,000	37,980,000	2,936,000	‡46,171,000
Daily average, 7/29	1,221,100	142,100	1,225,200	94,700	1,489,400
Daily average, 6/29	1,186,900	164,300	1,244,600	97,600	1,757,100
Texas Gulf Coast	5,872,000	493,000	4,629,000	672,000	5,216,000
Louisiana Gulf Coast	1,800,000	332,000	1,231,000	60,000	5,575,000

Input—	Coke (tons)	Asphalt (tons)	Other finished products (bbls.)	Unfinished products (bbls.)	Shortage (bbls.)
East Coast	14,300	179,900	194,000	202,000	677,000
Appalachian	3,300	2,000	19,000	94,000	227,000
Ind., Ill., Kentucky, etc.	38,600	55,800	209,000	158,000	170,000
Oklahoma, Kansas, Missouri	32,300	2,500	43,000	252,000	502,000
Texas	37,100	27,100	14,000	1,226,000	988,000
Louisiana and Arkansas	10,900	39,600	253,000	526,000	235,000
Rocky Mountain	11,100	1,200	35,000	595,000	43,900
California	10,300	77,900	330,000	*527,000	486,000
Total United States	‡157,900	‡386,000	1,097,000	3,580,000	3,328,000
Daily average, 7/29	5,100	12,500	35,400	115,000	107,400
Daily average, 6/29	5,130	10,900	37,100	144,400	109,400
Texas Gulf Coast	31,100	27,100	2,000	864,000	765,000
Louisiana Gulf Coast	10,700	35,700	250,000	269,000	79,000

*Includes 37,000 bbls. net tops produced. †Includes 232,000 bbls. run through pipe lines. ‡Wax, coke, and asphalt equivalent to 281.5 pounds per barrel and 5.16 and 5.54 barrels per ton, respectively.

GASOLINE PRODUCTION BY THE VARIOUS METHODS—JULY, 1929 (Barrels)

	Straightrun	%	Cracked	%	Natural gasoline	%	Total
East Coast	2,272,000	50	2,190,000	48	91,000	2	4,553,000
Appalachian	826,000	60	503,000	37	48,000	3	1,377,000
Ind., Ill., Ky., etc.	3,177,000	54	2,462,000	42	218,000	4	5,857,000
Okla., Kans., Mo.	3,246,000	59	1,910,000	34	398,000	7	5,554,000
Texas	4,248,000	55	2,846,000	36	679,000	9	7,773,000
Louisiana and Arkansas	1,051,000	42	926,000	37	546,000	21	2,523,000
Rocky Mountain	686,000	49	583,000	42	130,000	9	1,399,000
California	6,243,000	71	881,000	10	*1,695,000	19	8,819,000
Total	21,749,000	57	12,301,000	33	3,805,000	10	37,855,000
Total, June, 1929	20,175,000	57	11,883,000	33	3,548,000	10	35,606,000
Total, Jan.-July, 1929	141,826,000	58	77,990,000	32	24,617,000	10	244,433,000
Total, July, 1928	19,441,000	59	10,651,000	32	2,867,000	9	32,959,000
Gulf Coasts	4,540,000	59	2,207,000	29	925,000	12	7,672,000

*Includes 232,000 bbls. run through pipe lines.

STOCKS HELD BY REFINING COMPANIES IN THE UNITED STATES, JULY 31, 1929

	Gasoline (bbls.)	Kerosene (bbls.)	Gas oil and fuel oil (bbls.)	Lubricants (bbls.)
East Coast	4,861,000	1,290,000	8,667,000	2,283,000
Appalachian	1,300,000	315,000	1,078,000	1,156,000
Indiana, Illinois, Kentucky, etc.	5,665,000	867,000	3,292,000	618,000
Oklahoma, Kansas, Missouri	4,336,000	682,000	6,155,000	426,000
Texas	4,995,000	1,648,000	13,138,000	1,905,000
Louisiana and Arkansas	2,022,000	850,000	6,410,000	92,000
Rocky Mountain	2,318,000	260,000	1,335,000	160,000
California	12,383,000	2,885,000	.....	884,000
Total	37,880,000	8,797,000	*40,075,000	7,524,000
Total 6/30/29	†41,991,000	8,348,000	*37,332,000	‡7,869,000
Texas Gulf Coast	3,906,000	1,484,000	9,482,000	1,864,000
Louisiana Gulf Coast	1,739,000	831,000	5,047,000	85,000

	Wax (lbs.)	Coke (tons)	Asphalt (tons)	Other finished products (bbls.)	Unfinished oils (bbls.)
East Coast	92,043,000	17,000	99,200	110,000	8,009,000
Appalachian	21,994,000	3,700	400	65,000	1,453,000
Ind., Ill., Ky., etc.	14,298,000	59,700	40,400	185,000	3,654,000
Okla., Kans., Mo.	9,788,000	98,000	4,200	47,000	2,133,000
Texas	9,282,000	212,400	9,900	14,000	12,606,000
Louisiana and Arkansas	21,107,000	55,300	28,500	84,000	2,172,000
Rocky Mountain	22,786,000	96,700	7,500	43,000	1,929,000
California	.....	21,100	53,200	185,000	§10,484,000
Total	191,298,000	563,900	243,300	733,000	42,440,000
Total 6/30/29	188,764,000	498,400	247,100	750,000	§42,722,000
Texas Gulf Coast	9,074,000	194,800	9,800	5,000	11,276,000
Louisiana Gulf Coast	21,107,000	55,200	22,000	81,000	1,594,000

*East of California. †Revised—Louisiana Gulf Coast. ‡Revised—California. §Includes 2,488,000 bbls. tops in storage.

"VULCAN"

Built For Hard Service

Wherever oil is found, there you'll find Williams' "Vulcans." More are used in the oil fields than all other tongs combined.

They are built to stand gruelling use and punishing abuse. "Vulcan" has "*guts*"—tough wrought steel from end to end. An oversize through-bolt with U. S. Standard nut fastens the jaws to the handle. Every chain is proof-tested and CERTIFIED.

Wise buyers always give field workers GENUINE Williams' "Vulcans"—the tongs the workers themselves would buy. Nine sizes for 1/8 to 18" pipe.

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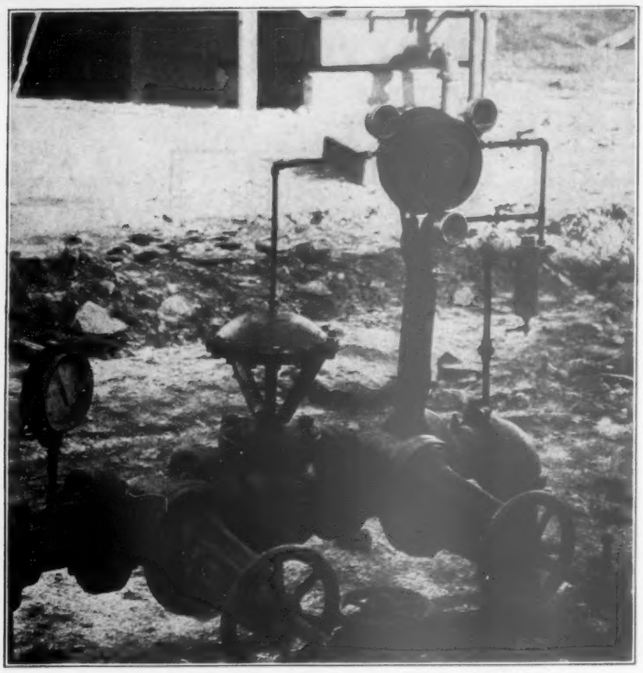

Tycos Back Pressure Regulators maintain a constant back pressure in residue gas lines at a natural gasoline plant.

Tycos Back Pressure Regulators (Pilot Operated)

THE *Tycos* Back Pressure Regulator successfully meets the demand for an instrument capable of giving close and consistent back pressure regulation, which the present highly developed and scientific practices of natural gasoline manufacturers demand.

It will maintain constant back pressures on gasoline plant absorbers, accumulator tanks, fractionators or stabilizers, surge tanks, stock vent tanks, re-run stills, residue gas lines, etc. Also on pressure distillate receivers, or gas separators of refinery cracking units.

Close regulation is assured by the high sensitivity of the regulator response and the throttling action of the control valve. With tendency toward the slightest pressure change in the process under control, the valve in the gas discharge line immediately throttles to such a position as is necessary to release the required amount of gas to give a consistently smooth and constant back pressure, as is evidenced in the even line on the recording pressure gauge chart.

Additional information on this installation furnished on request.

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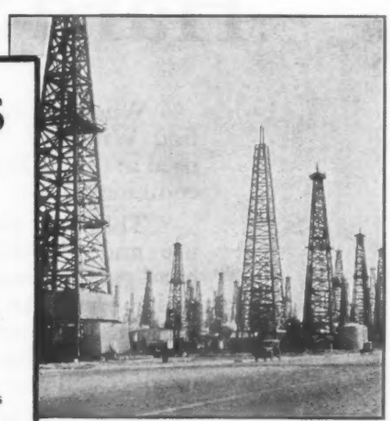
Even in drilling to great depths, where brake lining is subjected to enormous strains and intense frictional heat, Rusco gives long and efficient service. It does not score brake drums nor give off offensive fumes.

Rusco Industrial Brake Lining is made from selected long fibre, Canadian Chrysotile asbestos—the finest and toughest asbestos mined—the best heat resistant.

Special looms on which Rusco is woven were designed and built in the Russell plant and weigh over 10 tons, the heaviest brake lining looms in the industry. These mighty looms literally pound the threads into one sturdy, solid woven unit—making a product of exceptional strength and durability.

Rusco Industrial Brake Lining is available in all sizes up to 20 inches in width.

If you do not know the name of the nearest Rusco supply dealer, write us for complete information. Address Dept. V-16, The Russell Mfg. Co., Middletown, Conn. In Canada, The Russell Mfg. Co., Ltd., St. Johns, P. Q. Also manufacturers of Rusco Belting.



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1. Gives longer service
2. Withstands frictional heat
3. No offensive fumes
4. Does not score brake drums
5. Waterproof and oil proof

RUSCO

INDUSTRIAL

BRAKE LINING

AVERAGE NET TANK WAGON PRICE CONTINUES TO SLOWLY DECLINE

Except for two reductions in the gasoline tank wagon prices in the list of 50 cities in The Oil and Gas Journal's monthly survey, the market remained unchanged during August. The average tank wagon price, free of taxes, was 15.74 cents on September 1 and 15.82 cents on August 1. The greater share of this drop is due to the 3-cent reduction in the tank wagon and station prices posted in New York City August 30 by the Standard Oil Co. of New York.

There were no general reductions in any section of the country, the retail market remaining firm as the consumption mounted during the seasonal demand. Further advances in the price were halted, however, by the great volume of production and the relatively high stocks of gasoline held at refineries.

As the September 1 average fell below the average of a year ago, the prediction was generally accepted that the average for 1929 will approximate the average for 1928. To date the 1929 average has been slightly above that of last year but there was an advancing market during the summer and early fall season a year ago while the reverse is true this year. In money, the industry stands a chance of having to show a lesser average price for their products this year due to this fact.

TANK WAGON PRICES EXCLUSIVE OF TAX IN 50 REPRESENTATIVE CITIES

	Aug. 1	August price changes	Sept. 1	1928 High	1928 Low	1927 High	1927 Low	Tax 1929 Sept. 1
Birmingham, Ala.	16.0	....	16.0	18.0	14.0	18.0	14.0	4.0
Phoenix, Ariz.	14.0	....	14.0	18.0	14.0	19.0	16.0	4.0
Little Rock, Ark.	14.0	....	14.0	16.0	11.0	15.0	11.0	5.0
San Francisco, Calif.	17.0	....	17.0	14.0	14.0	14.0	9.0	3.0
Denver, Colo.	14.0	....	14.0	16.0	13.0	18.0	13.0	4.0
Hartford, Conn.	16.0	....	16.0	18.0	16.0	22.0	18.0	2.0
Dover, Del.	17.0	....	17.0	18.0	16.0	19.0	16.0	3.0
Jacksonville, Fla.	16.0	....	16.0	18.0	13.0	16.0	10.0	6.0
Atlanta, Ga.	16.0	....	16.0	18.0	13.0	18.0	10.0	4.0
Boise, Idaho	20.5	....	20.5	20.5	19.5	22.5	19.5	4.0
Peoria, Ill.	16.2	....	16.2	15.2	9.0	18.2	9.0	3.0
Chicago, Ill.	16.0	....	16.0	15.0	14.0	17.0	14.0	3.0
Indianapolis, Ind.	16.2	....	16.2	15.2	10.2	18.2	10.2	4.0
Des Moines, Iowa	16.5	....	16.5	15.5	11.9	16.0	9.9	3.0
Wichita, Kans.	14.8	....	14.8	13.8	10.8	15.8	10.8	3.0
Louisville, Ky.	16.0	....	16.0	16.0	13.0	17.0	13.0	5.0
New Orleans, La.	11.5	....	11.5	14.5	10.5	14.5	11.5	*5.0
Augusta, Me.	16.0	....	16.0	18.0	17.0	22.0	17.0	4.0
Baltimore, Md.	14.0	....	14.0	16.0	15.0	19.0	16.0	4.0
Springfield, Mass.	16.0	....	16.0	18.0	16.0	22.0	12.0	2.0
Detroit, Mich.	16.8	....	16.8	15.8	11.8	18.8	11.8	3.0
Duluth, Minn.	17.5	....	17.5	16.5	12.5	19.5	12.5	3.0
Natchez, Miss.	15.5	....	15.5	16.5	12.5	15.5	12.5	5.0
Kansas City, Mo.	15.9	....	15.9	14.9	10.9	17.9	10.9	*3.0
Helena, Mont.	20.5	....	20.5	20.5	19.5	22.0	19.5	5.0
Omaha, Neb.	16.25	....	16.25	15.25	13.25	15.25	12.25	4.0
Reno, Nev.	20.0	....	20.0	18.0	18.0	18.0	15.0	4.0
Newark, N. J.	14.0	....	14.0	16.0	15.0	19.0	16.0	2.0
Albuquerque, N. Mex.	16.0	....	16.0	17.0	14.0	20.0	16.0	5.0
New York, N. Y.	17.0	3¢ 14.0	14.0	18.0	17.0	22.0	17.0	2.0
Charlotte, N. C.	14.0	....	14.0	17.0	15.0	18.0	16.0	5.0
Fargo, N. Dak.	18.9	....	18.9	17.0	12.0	20.0	12.0	3.0
Cleveland, Ohio	15.0	....	15.0	16.0	14.0	19.0	14.0	4.0
Tulsa, Okla.	11.0	....	11.0	14.0	10.0	15.0	10.0	4.0
Portland, Ore.	17.5	....	17.5	14.5	14.5	14.5	11.0	3.0
Philadelphia, Pa.	17.0	....	17.0	18.0	15.0	19.0	12.0	†4.0
Providence, R. I.	14.0	....	14.0	19.0	17.0	22.0	17.0	2.0
Charleston, S. C.	14.0	....	14.0	17.0	15.0	19.0	15.0	6.0
Huron, S. Dak.	17.3	....	17.3	16.3	14.5	19.5	11.5	4.0
Memphis, Tenn.	13.0	....	13.0	16.0	12.0	15.0	10.0	5.0
Dallas, Tex.	13.0	....	13.0	14.0	9.0	13.0	10.0	4.0
Salt Lake City, Utah	18.5	....	18.5	18.5	16.5	20.5	16.5	3.5
Burlington, Vt.	15.0	....	15.0	18.0	17.0	22.0	17.0	4.0
Norfolk, Va.	14.0	....	14.0	16.0	14.0	18.0	16.0	5.0
Washington, D. C.	14.0	....	14.0	16.0	15.0	19.0	16.0	2.0
Charleston, W. Va.	14.0	....	14.0	17.0	15.0	18.0	16.0	4.0
Milwaukee, Wis.	16.1	....	16.1	15.1	13.1	18.1	13.1	2.0
Casper, Wyo.	17.0	....	17.0	16.0	14.0	18.0	14.0	4.0
Seattle, Wash.	17.5	....	17.5	14.5	14.5	14.5	11.0	3.0
Minneapolis, Minn.	17.2	....	17.2	16.2	11.0	15.2	11.1	2.0
Average price	15.82	....	15.74	16.5[illegible]	13.54	18.15	13.55	3.69

*State tax 2 cents, remainder city tax. †Paid by dealer.

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The Cost of Drilling Oil Wells is going to take a Drop!

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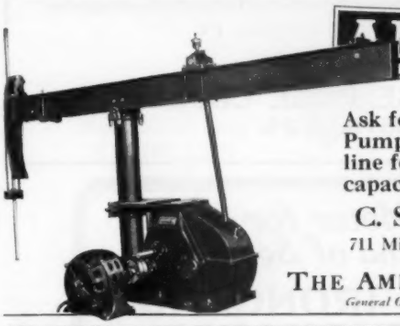
CRANE CAST STEEL AND FORGED STEEL ARE SUPER-STRONG VALVE METALS

CRANE

THEY SAFELY CONTROL HIGHEST PRESSURES AND TEMPERATURES



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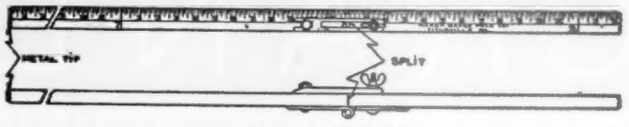

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even though the average of the monthly figures show the reverse.

AVERAGE TANK WAGON PRICES IN 50 CITIES

(Exclusive of Tax)

July 1, 1927	14.86
August 1	14.89
September 1	14.62
October 1	14.39
November 1	14.32
December 1	14.21
January 1, 1928	14.29
February 1	14.33
March 1	14.71
April 1	14.81
May 1	15.02
June 1	15.22
July 1	15.29
August 1	15.74
September 1	16.04
October 1	16.34
November 1	16.28
December 1	15.98
January 1, 1929	16.00
February 1	15.11
March 1	14.73
April 1	14.90
May 1	14.94
June 1	15.80
July 1	16.02
August 1	15.82
September 1	15.74

New Locations

(Continued from Page 135)

Tannehill and others' No. 25 Newell, 1,518 feet north and 2,402 feet west of the SE cor. of Section 11, Block 11, T.&P. Survey. Vacuum Oil Co.'s No. 6 J. B. Matthews, 450 feet south and 750 feet east of the NW cor. of the SW of the NW of Section 29, Block 10, E.T.R.R. Survey.

W. D. Wells and others' No. 1 Lewis Ackers, at the C of the NW of the SE of Section 34. Block 13, T.&P. Survey.

Stephens County

Byers Oil & Gas Co.'s No. 1 B. R. Hatton. 150 feet south and 160 feet east of the NW cor. of the F. M. Ward Survey. Lone Star Gas Co.'s No. 2 I. A. Calloway, 300 feet north and 1,147 feet east of the SW cor. of Section 2, Block C, S.P.R.R. Survey.

Throckmorton County

Shappell Oil Co.'s No. 4 Upshur County School Land, at the C of Lot 98, Upshur County School Land. A-825.

Wichita County

Spikes & Temple's No. 1 J. M. McCormick, 1,190 feet south and 1,090 feet east of the NW cor. of Section 7, Palo Pinto County School Land, A-241.

Wilbarger County

L. G. Bradstreet Co.'s No. 1 W. T. Waggoner-H, 205 feet north and 1,214 feet east of the SW cor. of Section 41, Block 4, H.&T.C. Survey. C. P. Burton and others' No. 5 Waggoner-I, 2,490 feet north and 2,790 feet east of the SW cor. of Section 40, M.E.P.&P. Survey. Dixie Oil Co.'s No. 1 W. T. Waggoner-F, 150 feet south and 1,170 feet west of the NE cor. of Section 4, Block 4, H.&T.C. Survey. Easter Oil Co.'s No. 2 Waggoner-E, 660 feet north and west of the SE cor. of the W half of the NW of Section 22, Block 4, H.&T.C. Survey. Empire Gas & Fuel Co.'s No. 12 Waggoner-A, 57 feet north and 525 feet west of the SE cor. of the NW of Section 32, Block 4, H.& T.C. Survey. Same company's No. 13 Waggoner-A, 770 feet north and 205 feet west of the SE cor. of the NE of the NW of Section 32, Block 4, H.&T.C. Survey. Same company's No. 22 Waggoner-B, 265 feet south and 500 feet west of the NE cor. of the SW of Section 32, Block 4, H.&T.C. Survey.

Grayback Development Co.'s No. 1 Waggoner (Daniel), 205 feet south and 150 feet east of the NW cor. of the N half of the NW of the NW of Section 36, Block 2, H.&T.C. Survey. Same company's No. 1 Waggoner (Jones), 1,170 feet south and 870 feet west of the NE cor. of Section 37, Block 4, H.&T.C. Survey. Lawson's No. 7 Waggoner-"A", 660 feet south and 200 feet east of the NW cor. of the SW of the SE of Section 25, Block 4, H.&T.C. Survey. Lewis Production Co.'s No. 11 Waggoner-A, 155 feet south and 517 feet east of the NW cor. of the SW of the NE of Section 18, Block 4, H.&T.C. Survey. Staley-Wynne & Co.'s No. 6 Waggoner-B, 205 feet north and 1,015 feet west of the SE cor. of the NW of the SE of Section 25, Block 4, H.&T.C. Survey. Same company's No. 4 Waggoner-E, 215 feet south and 255 feet east of the NW cor. of the SW of the NE of Section 25, Block 4, H.&T.C. Survey. Same company and others' No. 1 Dave Melton, 150 feet south and east of the NW cor. of the NE of Section 9, Block 5, H.&T.C. Survey. Waggoner Refining Co.'s No. 11 Waggoner-J, 205 feet north and 610 feet east of the SW cor. of the NW of the NE of Section 25, Block 4, H.&T.C. Survey.

Zenith Oil Co.'s No. 1 M. J. George, 150 feet south and west of the northeast corner of the north 10 acres of the west half of the northeast 80 acres (square) of the M. J. George tract out of the J. Poitevent Survey, No. 29, A-352.

Young County

O. Bratcher's No. 1 J. O. and L. Stratton, 150 feet north and east of the southwest corner of the east half of the J. O. and L. Stratton 100-acre tract out of the S. Sallie Survey, A-252. Holbrook & Wood's No. 2 J. W. Dean, 150 feet south and east of the NW cor. SE, Section 19, Young County School Land, A-1,284. Panhandle Refining Co.'s No. 1 N. Prideaux-D, 2,140 feet north and 1,750 feet east of the southwest corner of the I.&G. N. Survey, A-1,324. Richardson Oil Corp.'s No. 2 H. O. Prideaux, 450 feet south and 1,183 feet east of the northwest corner of the M. Rhodes Survey, A-1,523. E. R. Riggs' No. 1 J. T. Marshall, 900 feet north and 150 feet west of the SE cor., Section 1,943, T.E.&L. Survey. The Texas Company and others' No. 1 W. B. Bailey, 150 feet south and west of the NE cor. W half, Section 165, T.E.&L. Survey.

Corrections

In Archer County: W. B. Omohundro's No. 1 J. R. Roberts and others, 150 feet south and west of the northeast corner of Lot 13, Section 100, A.T.N.C.L. Survey.

In Brown County: J. Bearman and others' No. 4 S. F. Miller, 800 feet north and 920 feet west of the southeast corner of T. J. Swindell Survey, A-1,171.

In Cooke County: Humble Oil & Refining Co.'s No. 3 Field & Bowers, 2,058 feet north and 150 feet east of the most southerly southwest corner of Charles F. Stanley Survey, A-904, being 253 feet north and 150 feet east of the southwest corner of its 20-acre lease. Shell Petroleum Corp.'s No. 1 Field & Bowers, 1,458 feet north and 150 feet east of the southwest corner of the Field & Bowers' 160-acre tract out of the F. Stanley Survey, A-904, being 347 feet south and 150 feet east of the northwest corner of their 101-acre lease. Shell Petroleum Corp.'s No. 2 Field & Bowers, 858 feet north and 150 feet east of the southwest corner of the Field & Bowers' 160-acre tract out of the F. Stanley Survey, A-904, being 947 feet south and 150 feet east of the northwest corner of their 101-acre lease. Shell Petroleum Corp.'s No. 4 Field & Bowers, 1,758 feet north and 150 feet east of the most southerly southwest corner of Charles F. Stanley Survey, A-904, being 47 feet south and 150 feet east of the northwest corner of their 101-acre lease.

In Eastland County: Davis and others' No. 1 R. H. Webb, 150 feet south and 510 feet west of the northeast corner of the northwest of the R. H. Webb 160-acre tract out of Section 12, Block 2, H.&T. C. Survey.

In Gray County: Magnolia Petroleum Co.'s No. 2 J. E. Wright, 330 feet north and 820 feet east of the SW cor., Section 13, Block 3, I.&G.N. Survey.

In Howard County: American Maracaibo Co.'s No. 3 W. R. Settles-A, 777 feet south and 990 feet east of the NW cor., Section 6, Block 32, T-2-S, T.&P. Survey.

In Jones County: Sedgwick Oil & Gas Co.'s No. 1 E. Morrison, 330 feet north

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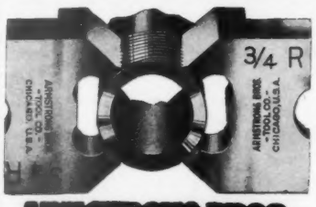

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County and District Catalog on Application
HEYDRICK MAPPING COMPANY
Wichita Falls, Texas

Chester W. Washburne
Geologist and Engineer
27 William St., N. Y.

and 1,320 feet east of the SW cor., Section 9, Block 1, T.&N.O. Survey.

In Pecos County: Kirby Petroleum Co. and Edson's No. 1 J. H. Tippett, 719 feet north and 200 feet west of the southwest corner of Runnels County School Land, A-2,169, and located in Section 108, C.T.&M.C. Survey. McMan Oil & Gas Co.'s No. 1 Tippett, 352 feet north and 200 feet west of the southwest corner of the Runnels County School Land, A-2,169, and located in Section 108, C.T.& M.C. Survey. Skelly Oil Co.'s No. 1 Tippett, 1,217 feet north and 1,330 feet west of the southwest corner of the Runnels County School Land, A-2,1669, and located in Section 108, C.T.&M.C. Survey. Same company's No. 2 Tippett, 2,191 feet north and 1,330 feet west of the southwest corner of the Runnels County School Land, A-2,169, and located in Section 108, C.T.&M.C. Survey. Taylor-Link Oil Co.'s No. 5 University, 990 feet south and 330 feet east of the NW cor., Section 31, Block 16, University Land. Taylor-Link Oil Co.'s No. 66 University Land, 330 feet north and 330 feet east of the SW cor., Section 30, Block 16, University Land. Landreth Production Co.'s No. 1 University-A, 330 feet south and east of the NW cor. NE SE, Section 13, Block 18, University Land.

In Wheeler County: Shell Petroleum Corp.'s No. 1 M. E. Ackley, at the C SW SE, Section 20, Block 24, H.&G.N. Survey.

In Wichita County: The Texas Company and others' No. 12 J. L. and T. J. Waggoner, 450 feet south of the northeast corner and located on the east line of Lot 28, H. George Survey, A-454.

In Wilbarger County: Empire Gas & Fuel Co.'s No. 14 W. T. Waggoner-C, 205 feet south and 205 feet west of the NE cor. SE NW, Section 25, Block 4, H.&T.C. Survey. Fain-McGaha Oil Corp.'s No. 8 Waggoner-L, 150 feet south and 750 feet west of the northeast corner of their lease "L" out of Section 31, Block 4, H.&T.C. Survey.

In Menard County: Barnett & Drake's No. 1 Callan City Co. (Rasmussen), 150 feet south and west of the NE cor. SW, Section 7, B.S.&F. Survey.

TENTH BIRTHDAY OF SKELLY ORGANIZATION

Employes, who have had five years or more continuous service, will be guests of honor at Skelly Oil Co.'s celebration at its tenth anniversary in Tulsa, October 4 and 5.

A picnic will be held at Crystal City amusement park on Friday, October 4. Saturday, October 5, will be spent at the Sixth International Petroleum Exposition.

All employes who will have completed 10 years of continuous employment with the company by October 1, will be special guests at the celebration and will be awarded gold medals.

The company's annual golf tournament will be held at Oakhurst Country Club on Saturday morning, October 5. Teams of 12 players each from the company's divisional headquarters at Eldorado, Kans., Kansas City, Mo., and Tulsa will compete for the company trophy, which has already been won twice by the Eldorado team. Permanent possession is gained by three straight wins. A feature of the picnic at Crystal City will be the elimination contest among safety teams from the refining and production departments to determine the company's representatives in the annual safety first competition at the Petroleum Exposition.

About 2,000 employes are expected to participate. Those from points other than Tulsa will be five-year employes only.

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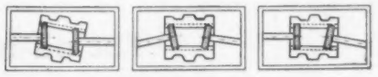

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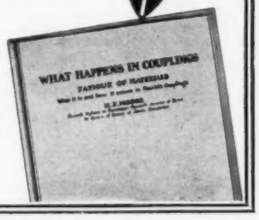

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Detailed Operations in All Fields for Month of August

SUMMARY OF ALL FIELDS

Wells Completed

Field—	Comp.	Prod.	Dry	Gas
Eastern	604	2,200	55	44
Central Ohio	130	785	34	51
Lima	17	279	0	2
Indiana	25	243	11	6
Michigan	45	9,675	9	0
Illinois	75	3,275	4	0
Kentucky	123	4,840	23	5
Mississippi	2	0	1	1
Oklahoma	293	65,205	109	30
Kansas	107	14,626	41	5
Texas Panhandle	98	85,614	9	19
No. Central Texas	497	29,502	207	21
East Central Texas	13	50	11	1
West Texas	106	45,801	40	3
Southwest Texas	77	14,038	29	9
East Texas	9	150	1	7
Gulf Coast	176	64,807	70	5
North Louisiana	77	4,553	28	27
Arkansas	14	362	7	2
Wyoming	15	3,126	6	0
Montana	60	1,078	13	16
Colorado	6	252	1	0
New Mexico	9	780	6	2
Total Aug.	2,578	351,241	715	256
Total July	2,257	333,015	664	264
Difference	321	18,226	51	8

Rigs and Wells Drilling

Field—	Rigs	Drlg.	Ttl.
Eastern	122	455	577
Central Ohio	75	210	285
Lima	5	31	36
Indiana	5	42	47
Michigan	55	128	183
Illinois	2	51	53
Kentucky	14	217	231
Tennessee	3	12	15
Mississippi	3	15	18
Alabama	0	5	5
Oklahoma	159	790	949
Kansas	66	299	365
Texas Panhandle	32	179	211
North Central Texas	98	444	542
East Central Texas	1	24	25
West Texas	56	253	309
Southwest Texas	29	161	190
East Texas	5	16	21
Gulf Coast	41	225	266
North Louisiana	49	114	163
Arkansas	14	53	67
Wyoming	31	159	190
Montana	20	101	121
Colorado	12	80	92
New Mexico	21	85	106
Utah	2	31	33
Total August	920	4,180	5,100
Total July	988	4,249	5,237
Difference	68	69	137

Note—In the following report the Section, Township and Range are given first; then the farm, the owner, the serial number of the well and the initial production of the well. In lines where the Section, Township and Range are missing the wells are located in the Sections, Townships and Ranges which appear next above in the report.

OKLAHOMA FIELDS

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Carter	7	883	0	0
Cotton	10	225	5	0
Creek	22	219	10	3
Hughes	7	325	3	2
Kay	3	....	2	1
Kiowa	6	3	5	0
Muskogee	16	191	5	2
Okfuskee	16	929	4	3
Okmulgee	16	90	10	0
Osage	29	1,145	7	5
Pawnee	13	864	3	3
Pontotoc	5	280	2	0
Pottawatomie	42	19,968	12	2
Seminole	44	32,268	16	2
Stephens	19	946	5	2
Wagoner	11	16	8	1
Miscellaneous	27	6,853	12	4
Total August	293	65,205	109	30
Total July	337	121,836	119	44
Difference	44	56,631	10	14

Summary of Rigs and Wells Drilling

County—	Rigs	Drlg.	Ttl.
Beckham	1	8	9
Carter	6	15	21
Cotton	4	6	10
Creek	18	63	81
Grady	1	5	6
Grant	1	13	14
Hughes	5	11	16
Kay	6	9	9
Logan	4	20	24
Muskogee	5	19	24
Oklahoma	24	57	81
Okfuskee	9	27	36
Okmulgee	4	25	29
Osage	7	33	40
Pawnee	6	11	17
Payne & Lincoln	4	21	25
Pontotoc	3	16	19
Pottawatomie	18	99	117
Seminole	21	208	229
Stephens	10	28	38
Tulsa	0	7	7
Wagoner	1	9	10
Miscellaneous	7	80	87
Total August	159	790	949
Total July	186	753	939
Difference	27	37	10

WELLS COMPLETED
CARTER COUNTY

2-1s-4w Sims, Magnolia Pet. Co. 1.... 110
12-1s-4w Taylor, Atlantic O. P. Co. 3.. 140
35-3s-2w Fish, H. L. Sturm 3 5
10-4s-2w Rexroat, Cotton Belt O Co. 9-C 165
30-1s-3w McCartney, The Prairie O. & G. Co. 1 40
19-1s-3w Eason, Ven Mex Oil Co. 2 65
30-1s-3w Dixon, Ven Mex Oil Co. 1 358

Wells completed 7
Production 883

COTTON COUNTY

24-1s-11w Crow, Bridwell et al 1 ..... dry
35-1s-10w Rhone, Baldwin & Sultan 1. 60
2-2s-10w Cobb, Moore et al 2..... dry
Chambers, Clifford Moore 4... 40
14-2s-11w Watkins, Stewart & Wiley 1.. dry
McAlester, C. A. Everts 1 .... dry
2-2s-10w Chambers, Silurian Oil Co. & Perkins & Cullum 2 30
Chambers, Silurian Oil Co. 9.. 40
Chambers, Silurian Oil Co. 7.. 55
31-1s-9w De Lans, Amerada Pet. Corp. 1 dry

Wells completed 10
Production 225
Dry 5

CREEK COUNTY

25-19- 8 Hinton, R. E. Perry 1 50
30-19- 8 Williams, A. A. Bailey et al 1-A dry
31-19- 9 Gilreath, Gled Oil Co. 1 ..... gas
11-17-11 M. Davis, Kurell Oil Co. 1.... 20
24-15-10 Nash, Wilcox O. & G. Co. 10.. dry
35-14- 9 Harjo, The Texas Company 1.. dry
27-14-10 Harjo, W. H. Elson et al 1.... dry
28-14-10 Deere, Billingslea & Riverland Oil Co. 1 ..... dry
14-18-11 Tiger, O. N. White 1-A ..... dry
12-17-11 Bruner, J. E. Murphy et al 2.. 10
12-17-11 Bruner, Sooner O. & G. Co. 3.. 15
16-17-11 Wilson, Thompson & Black 4.. dry
17-17-12 Kiefer, Franchott Oil Co. 31.. 15
5-18- 7 Crow, Pure Oil Co. 22 70
20-18- 7 Wacoche, Pure Oil Co. 5 20
18-16- 9 Ladd, The Prairie O. & G. Co. 2 dry
10-15- 8 Lewis, Shaffer O. & R. Co. and Billingslea 3 ..... gas
11-16- 8 Myers, Nowata O. & R. Co. 1.. dry
16-17- 7 Dacon, Sinclair O. & G. Co. 8.. 1
23-17- 8 Walker, Glenora Refg. Co. 4 ..... gas
14-18- 8 Oglesby, Jackson & Wise 1.... dry
30-18- 9 Parks, H. & Bartless Oil Co. 1 18

Wells completed 22
Production 219
Dry 10
Gas 3
Gas production 9,500,000

HUGHES COUNTY

4- 8-9 Deere, Amerada Pet. Corp. 1.. dry
19- 5-8 Hutchens, T.P.C.&O. Co. 4 .... dry
5- 8-9 McNevins, Gypsy Oil Co. 1 ... dry
8- 8-9 Godfrey, Magnolia Pet. Co. 1.. gas
9- 6-8 Bryant, The Texas Company 1. 100
17- 5-8 Reed, Magnolia Pet. Co. 5 225
19- 9-10 Lowery, Steckleburg et al 1 .. gas

Wells completed 7
Production 325
Dry 3
Gas 2
Gas production 11,000,000

KAY COUNTY

4-27-1 Quade, Parrish et al 1 ..... dry
17-29-1 White, Continental Oil Co. 4. dry
19-28-1 Hitche, B. E. Holden 1 ..... gas

Wells completed 3
Dry 2
Gas 1
Gas production 250,000

KIOWA COUNTY

18- 6-16w Ditmar, Alexander et al 2... 3
7- 6-16w Hobbs, Rymer et al 1 ..... dry
18- 6-16w Ditmar, Alexander et al 1... dry
Ditmar, Alexander et al 2... dry
19- 6-16w Ditmar, Cooper & Terhune 2.. dry
23- 7-17w Funkhouser, Russell & Sloan 1 dry

Wells completed 6
Production 3
Dry 5

MUSKOGEE COUNTY

33-16-15 McDaniel, Jolly & Stone 1 .... dry
8-15-15 Barnett, Bryan Pet. Co. 8 51
29-15-16 Howard, J. A. Swindler 1-A .. dry
7-15-18 Walker, H. Burke 1-A ..... dry
26-15-19 Anderson, C. D. Bradley 1 .... dry
8-13-16 Jackson, Mazda Oil Co. 2 20
Lewis, Robinson Bros. 3 20
17-13-16 S. London, R. & R. Drlg. Co. 1. gas
4-13-19 Brook, M. S. Mussellem 4 20
33-14-16 Caesar, E. B. George et al 1 . dry
8-15-15 N. Barnett, Babcock Bros. 1 .. 12
J. Friday, Mack Drlg. Co. 1-A .. 15
J. Friday, Troutt Drlg. Co. 1. 15
29-15-16 Howard, E. Price & Summers 2-A 30
30-15-16 Howard, R. B. Rose 11 8
28-16-15 Hawkins, J. Aggas No. 1-A .. gas

Wells completed 16
Production 191
Dry 5
Gas 2
Gas production 3,500,000

OKFUSKEE COUNTY

36-11-9 Severs, Ramsey Pet. Co. 2 .... dry
Micco, Sinclair O. & G. Co. 1 .. dry
15-11-11 Carter, Champlin O. & R. Co. 13 5
29-12-10 Monarye, Producers & Refiners Corp. 4 ..... gas
3-10-11 Johnson, Hazlett et al 1 5
11-10-11 Hill, W. L. Umburn 2 15
12-10-11 Robinson, Atlantic O. P. Co. 5. dry
21-10-11 Buckley, Holm & Jarvis et al 1 202
14-11-11 Jefferson, Champlin O. & R. Co. 3 12
22-11-11 Holmes, Champlin O. & R. Co. 14 8
32-12-10 Foster, C. L. McMahon & Carey 1 ..... gas
25-10-11 Scott, Prairie O. & G. Co. and T. B. Slick 1 ..... dry
8-13-18 Drew, Dixie Oil Co. 2 20
29-12-10 Monarye, Producers & Refiners Corp. 5 150
22-11-11 Holmes, Champlin O. & R. Co. 13 512
29-12-10 Sproleder, C. L. McMahon and J. Carey 2 ..... gas

Wells completed 16
Production 929
Dry 4
Gas 3
Gas production 43,711,000

OKMULGEE COUNTY

3-15-11 Grayson, Whitefield et al 7.... 10
Grayson, Sheridan Oil Co. 4 25
2-15-14 Barnett, Highland Oil Co. 7.. dry
28-15-12 Cole, Thompson & Jordan et al 1 ..... dry
16-14-14 Colbert, Kessler Pet. Co. 5 .... dry
8-14-15 Anderson, E. M. Granfield 2... dry
27-13-14 Hardridge, J. H. Rebold 8..... dry
27-12-12 Henry, Red Bank Oil Co. 1-A.. 18
14-11-13 McIntosh, Nicholson Corp. 3.. dry
14-14-14 Colbert, F. D. Misener 2 12
V. Colbert, J. E. Wallace 9 15
17-13-15 R. Atkins, Riverland Oil Co. 1-A ..... dry
22-13-12 Williams, Marquette Oil Co. 6.. dry
20-15-13 Price, Kirkland & Son 3..... 10
10-15-14 Carter, Laurel Oil Co. 3 ..... dry
31-15-12 James, Sam Bright et al 1-A. dry

Wells completed 16
Production 90
Dry 10

OSAGE COUNTY

29-28-11 Osage Gas Producers 1 ..... gas
22-27-11 Peters Pet. Corp. 5 50
18-25-12 I. T. I. Oil Co. 407 ..... dry
22-24- 7 Kay County Gas Co. 7-B ..... gas
7-24- 8 Galt Brown Oil Co. 6 15
34-24- 8 W. D. Gray et al 4 530
32-24- 9 Peters Pet. Corp. 4 10
32-22- 8 Wrightsman Pet. Corp. 1 17
31-22- 9 Peters Pet. Corp. 1 ..... dry
12-21- 8 Braden & Moore 17 ..... dry
22-29-11 Winona Oil Co. 12 15
1-28-10 I. T. I. Oil Co. 411 ..... gas
16-27-10 I. T. I. Oil Co. 1 80
26-25- 9 Peters Pet. Corp. 10 200
32-24- 9 Peters Pet. Corp. 8 3
5-24-11 M. Grace Maxwell 3 5
6-23- 9 A. G. Oliphant 3 50
31-22-12 Elliott & Smith 1 10
30-21-10 Devonian Oil Co. 3 15
28-20-11 Gray Oil Co. 9 35
8-24- 9 I. T. I. Oil Co. 410 ..... gas
31-24- 9 Stoner Bros. et al 4 15
15-25- 8 L. G. Stanley et al 2 ..... dry
22-25-12 W. K. Cottrell et al 56 ..... dry
21-25-11 Harland Oil Co. 86 15
33-26- 7 Duffield & Howard 1 ..... dry
7-21- 9 W. S. Mitchell 1 ..... dry
6-25-11 I. T. I. Oil Co. 413 ..... gas

Wells completed 29
Production 1145
Dry 7
Gas 5
Gas production 25,000,000

PAWNEE COUNTY

24-21- 7 Parker, Peter Adamson 4 ... dry
25-21- 7 Scully, Johnson O. & R. Co. 1-A. 310
15-20- 9 Martin, Bartless et al 1-B .... gas
25-20- 9 Townsite, Slanagan & Johnson 1 4
25-20- 9 Johnson, Jackson et al 7..... 5
27-20- 9 Johnson, McMan et al 1 ..... gas
17-20-10 Price, Union Oil & Mining Co., 1 dry
24-21- 7 Parker, Peter Adamson 3.... 200
10-29- 8 McNeal, The Prairie O. & G. Co. 10 10
22-20- 9 Short & Mann 1 35
27-20- 9 Mitchell, McMan et al 1 ..... gas
30-20- 9 Zickelfoose, McMan et al 1 ..... dry
35-20- 9 Wiggs, Sears et al 4 300

Wells completed 13
Production 864
Dry 3
Gas 3
Gas production 2,750,000

PONTOTOC COUNTY

19-5-5 L. Davis, Independent O. & G. Co. 1 ..... dry
19-5-5 Robertson, American O. & R. Co. 2 110
3-4-6 Gardner, Sinclair O. & G. Co. 2.. dry
19-5-5 Bolene, Transcontinental Oil Co. 1 80
30-5-5 Hatcher, Texas Pacific C. & O. Co. 1 90

Wells completed 5
Production 280
Dry 2

POTTAWATOMIE COUNTY

33-8-5 Raper, Phillips Pet. Co. & Fuhrman Pet. 1 ..... dry
1-7-4 Borrows, Independent O. & G. Co. 1 590
Tolen, Pure Oil Co. 1 130
Tolen, Pure Oil Co. 2 ..... dry
2-7-4 Grace, Phillips Pet. Co. 2 ..... dry
15-7-4 Robbins, Magnolia Pet. Co. 1....227
16-7-4 Pappan, Independent O. & G. Co. 1 1,160
22-7-4 Billington, Magnolia Petroleum Co. 3 ..... gas
18-6-4 Townsite, Clark & Cowden 1 .... dry
19-6-4 Laster, Simms Oil Co. 3 4,120
35-8-4 Shobe, I. T. I. Oil Co. 1 581
17-8-5 Wallace, Amerada Pet. Co. & Barnsdall 4 275
20-8-5 Green, Magnolia Pet. Co. 3 160
2-7-4 Grace, Phillips Pet. Co. 1 270
17-7-4 Hubanks, Magnolia Pet. Co. & Pierce Pet. 2 600
29-7-5 Nadash, Sinclair O. & G. Co. 1.. dry
17-6-4 Newell, Independent O. & G. Co. & Twin State 1 ..... dry
18-6-4 Townsite, Rush & Vaughn 1 .... dry
Townsite, Texola Oil Co. 1 1,640
19-6-4 Alexander, Tom Slick Oil Co. 1..230
Laster, The Prairie O. & G. Co. & T. B. Slick 4 90
18-6-4 Townsite, G. W. Stogner et al 1. dry
1-7-4 Kennedy, Gypsy Oil Co. 1 ..... dry
2-7-4 Kelly, Martin & Irwin 1 700
8-7-4 Decker, Mid-Continent Pet. Corp. 1 175
9-7-4 Nixon, Darby Petroleum Corp. 1..125
15-7-4 Richardson, Magnolia Pet. Co. 1...90
16-7-4 Rhodd, Independent O. & G. Co. & Westland Oil 2 1,383
17-7-4 Green, Gypsy Oil Co. 2 660
18-7-4 Jones, Magnolia Pet. Co. 1 135
22-7-4 Billington, Magnolia Pet. Co. 1.. gas
8-8-5 Smith, Empire O. & R. Co. 2....1,360
16-7-4 Simms, Minnehoma Oil Co. 2 450
17-7-4 Bettis, Empire O. & R. Co. 1 370
Reagan, Prairie O. & G. Co. 2..1,665
Cummings, Prairie O. & G. Co. 1..600
Cummings, Prairie O. & G. Co. 2. 325
27-7-6 Tom Wood, Prairie O. & G. Co. 1 dry
26-7-6 Wood, Prairie O. & G. Co. 5.... dry
9-8-5 Gossland, Gypsy Oil Co. 1 1,642
18-8-5 Billington, Laurel Oil Co. 4 .... dry
20-8-5 Smith, Magnolia Pet. Co. & Gypsy Oil Co. 1 215

Wells completed 42
Production 19,968
Dry 12
Gas 2
Gas production 14,000,000

SEMINOLE COUNTY

20-10-7 M. Harjo, Gypsy Oil Co. 1..... dry
35-10-6 Shaffer, Carter Oil Co. 1 ..... dry
5- 9-6 Varnum, Magnolia Pet. Co. & Mid-Kansas O. & G. 1 107
11- 8-5 Cluck, Empire O. & R. Co. 12...624
Coker, Barnsdall Oil Co. 9 385
5- 8-8 Proctor, Continental Oil Co. 1... dry
11- 7-6 Thomas, Blackwell O. & G. Co. 1 10
23- 7-6 L. Cudjo, Carter Oil Co. 3 100
5- 7-7 Smith, Mid-Continent Pet. Corp. 6 3,995
Payne, Gypsy Oil Co. 3 3,015
7- 6-8 Davis, Carter Oil Co. 1 ..... dry
23- 5-7 Peter, Gypsy Oil Co. 1 1,032
3- 9-6 Nicey, Amerada Pet. Corp. 1.... 76
11- 9-6 Community-Strothers, Carter Oil Co. 2 595
11- 8-5 Cluck, Empire O. & R. Co. 11 .. dry
5- 7-7 Smith, Mid-Continent Pet. Corp. 10 3,425
13- 6-7 Bond, Signal Oil Co. 1 1,080
7- 6-8 Holaika, Shell Pet. Corp. 1 1,733
24- 6-7 Parter, I. T. I. Oil Co. 1 ..... dry
11- 7-6 Janey, The Texas Company 7 .. gas
6- 8-6 Townsend, Prairie O.&G. Co. 2.1,010
11- 8-5 Billington, Prairie O.&G. Co. 10. dry
23- 7-6 Cotcha, Barnsdall Oil Co. 3 600
24- 7-6 Walker, Carter Oil Co. 2 965
B. Larney, Carter Oil Co. 3.....185
27- 7-6 Cozad, Gypsy Oil Co. 1 ..... dry
2- 8-5 C. Coker, Carter Oil Co. 2....1,765
11- 8-5 Cluck, Empire O. & R. Co. 14..494
5- 9-6 Varnum, Skelly Oil Co. et al 1..512
11- 9-6 Thomas, Superior Oil Corp & Gypsy Oil Co. 1 ..... dry
16- 9-6 Community-Sanford, Carter Oil Co. et al 1 275
18- 9-6 D. W. Anderson, Magnolia Pet. Co. 2 4,800
18- 5-8 Lucy, The Texas Company 11..490
13- 7-6 Davis, Independent O. & G. Co. 5 115
23- 7-6 Cotcha, Gypsy Oil Co. 17 .... gas
27- 7-6 Lack, Continental Oil Co. 1.... dry
Cotcha, Empire O. & R. Co. 2 .. dry
Cotcha, Empire O. & R. Co. 3 .. dry
Cotcha, Empire O. & R. Co. 4 .. dry
5- 7-7 Smith, Mid-Continent Pet. Corp. 7 3,470
5- 8-6 Mission, Gypsy Oil Co. 3 ..... dry
10- 8-6 Strothers "F," Pure Oil Co. 8.. dry
8- 9-6 Sarkeys, Magnolia Pet. Co. 1 ... dry
11- 9-6 Community-Mayhue, Carter Oil Co. 1 1,410

Wells completed 44
Production 32,268
Dry 16
Gas 2
Gas production 81,000,000

STEPHENS COUNTY

25-1 -9w Ketchem, Ellis Drlg. Co. 4..... 10
28-1s-8w Springer, Winker & McQueen 6 25
34-1s-8w Dexter, American P. L. Co. 7.. gas
Nigh, Ellis Drlg. Co. 5..... gas
Simpson, Roy Carter 7 6
Kagay, Magnolia Pet. 24..... dry
29-2s-7w Bristowe, Pace et al 1..... dry
9-2s-6w Spain, Wirt Franklin Pet. 1.. 616
12-2s-8w Fobb "B," Murphy Oil Co. 16. 12
13-2s-8w Peck, Magnolia Pet. Co. 5.... 5
Peck, Magnolia Pet. Co. 6..... 65
13-2s-8w McMasters, Pace et al 7..... 25
12-1s-4w Brittain, Wirt Franklin Pet. 5 60
9-1 -5w Oshter, Magnolia Pet. Co. 1.. dry
21-2s-7w Bunch, Pace et al 1..... 55
34-1s-8w Nigh, American Pipe Line 8.. 25
13-2s-8w Peck, Magnolia Pet. Co. 7.... 42
13-2s-8w McMasters, Pace et al 2..... dry
14-2s-8w Woodward, Ven Mex and Mid-Continent Pet. Corp. 1..... dry

Wells completed 19
Production 946
Dry 5
Gas 2
Gas production 13,500,000

WAGONER COUNTY

15-18-17 Drew, Mid-Co Oil Co. 2 ..... gas
21-18-17 Childers, H. D. McCracken 8.. dry
34-18-17 Willis, C. F. Finefield 1-A..... dry
21-18-16 Tiger, Creekmore et al 11..... dry

29-18-17 Childers, Elk Drlg. Co. 4..... dry
16-18-6 Mantooth, F. Loesing 2 ..... dry
34-18-17 Drake, Western Drlg. & Equipment Co. 1 ..... dry
9-18-15 R. Smith, Barnes & Hanks 19.. 12
11-18-15 Luckey, H. H. Taylor and W. C. Hatch 2 ..... dry
16-18-16 Mantooth, F. Loesing 2 ..... dry
15-18-17 Love, Ash Bros. 1 4

Wells completed 11
Production 16
Dry 8
Gas 1
Gas production 1,000,000

MISCELLANEOUS COUNTIES

Cimarron County—
22-5-5ecm School land, Magnolia Pet. 1. dry
Grant County—
22-27-3w Howell, Argo Oil Co. 2..... 40
Le Flore County—
9-9-27 Brown, Le Flore County G &E. 5 dry
Lincoln County—
15-16-4 House, J. V. Bailey 1..... dry
19-16-6 Finley, Flynn & Morgan 1 .... dry
3-14-5 Sukovaty, Magnolia Pet. Co. 8.. dry
Marshall County—
30-5s-6 Sullivan, Bilbo Oil Trust Co. 1.. 10
6-6s-5 Lynn, Wm. Hewitt et al 1..... dry
Murray County—
17-1-2 Wolf, Revels & McGee 1..... dry
Payne County—
5-19-1w Watkins, Reiter-Foster Oil 1.. 100
19-18-5 Jennings, Magnolia Pet. Co. 2. 12
5-19-5 Brown, Pure Oil Co 1 10
Tulsa County—
28-18-14 Flippen, Byrne & Green 1..... gas
Flippen, Byrne & Green 2..... gas
20-21-13 Chisholm, Gypsy Oil Co. 11... gas
McIntosh County—
15-11-17 Wells, Western Natl. Gas Co. 1 dry
Payne County—
10-18-5 Powers, Transcontinental Oil 2. gas
Garfield County—
15-23-3w Barnes, Oil States Co. 1..... dry
Oklahoma County—
19-11-2w Hiddleston, Prairie O. & G. and T. B. Slick 1 3560
Logan County—
31-19-4w Gardner, J. S. Cosden 1.....5083
Beckham County—
35-9-25w Halmberg, Fred Googan 1-A.. dry
Tillman County—
13-1-17w Howell, Allen Bros. 1 ..... dry
Nowata County—
21-27-16 Smith, Smith & Aymer 1..... 10
Smith, Smith & Aymer 2..... 25
25-28-14 Grist, Skiatook O. & G. Co. 1.. gas
36-29-14 Wikon, M. B. Shufflin 2 3
Washington County—
13-24-12 Coon, Zola Oil Co. 1 ..... dry

Wells completed 27
Production 6853
Dry 12
Gas 4
Gas production 10,050,000

KANSAS FIELDS

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Butler	8	760	2	0
Greenwood	21	2,997	7	0
Sedgwick	23	9,649	6	0
Miscellaneous	55	1,220	26	5
Total August	107	14,626	41	5
Total July	113	24,222	43	3
Difference	6	9,596	2	2

Summary of Rigs and Wells Drilling

County—	Rigs	Drlg.	Ttl.
Butler	9	27	36
Cowley	3	16	19
Elk	2	16	18
Ellis	5	8	13
Greenwood	4	31	35
Harvey	1	10	11
McPherson	8	16	24
Marion	3	11	14
Russell	3	6	9
Sedgwick	5	69	74
Sumner	7	15	22
Woodson	1	11	12
Miscellaneous	15	63	78
Total August	66	299	365
Total July	55	294	349
Difference	11	5	16

WELLS COMPLETED

BUTLER COUNTY

20-26-5 Koogler, Empire O. & R. Co. 82, 75
Koogler, Empire O. & G. Co. 83. 75
15-27-5 Nixon, Empire O. & G. Co. 1.... 40
22-27-5 Cranston, Empire O. & R. Co. 10 275
22-27-5 Cranston, Empire O. & R. Co. 11 265
6-27-6 Sluss "C," H. B. Garden 3..... dry
8-27-6 Brissey, Richmond Drlg. Co. 3.. 30
4-28-6 Riggs, Magnolia Pet. Co. 2..... dry

Wells completed 8
Production 760
Dry 2

GREENWOOD COUNTY

10-22-10 Pixlee, Phillips Pet. Co. 5..... dry
21-23-11 Edwards, The Texas Co. 6-C... 800
26-23-11 Ellis, Simmons and Amerada Pet Corp. 8..... 15
19-22-10 Pixlee, Transcontinental Oil 6. dry
7-24-12 Scott, Foster Pet. Co. 2..... 20
14-24-12 Sullivan, Houston Oklahoma Oil Co. 13 40
6-25- 9 Coulter, Lassen et al 2..... 15
19-22-10 Pixlee, Phillips Pet. Co. 4..... dry
21-23-11 Edwards, The Texas Co. 7-C... 500
28-23-11 Beal, Phillips Pet. Co. 1..... 650
15-23-13 Sugder, Shafer & Howell 15.... 10
6-25- 9 Olsen, Murphy et al 7..... 30
5-26-13 Souder, West Coast Leasing Co. 1 ..... dry
9-25-13 Webber, Prairie O. & G. Co. 2.. 225
10-24-10 Cook, Smith & Polhamus 1.... dry
9-25-13 Hoggett, Empire O. & R. Co. 2. 100
Ralston, Bisagno et al 2..... 25
7-27-11 Grundy, Mohawk Oil Co. 5..... dry
6-23-10 Barnard, The Texas Co. 1..... dry
21-23-11 Edwards "B," Empire O. & R. Co. 3 467
6-24-10 Cartwright, Central Pet. Co. 7.. 40

Wells completed 21
Production 2997
Dry 7

SEDGWICK COUNTY

1-26-1w Reed, Bu Vi Bar Pet. Corp. 2.. 895
Reed, Bu Vi Bar Pet. Corp. 3.1034
7-26-1 Shawver, Bu Vi Bar Pet. Corp. 8 838
2-26-2 Miller, Mars Oil Co. 1..... 460
15-26-2 Richards, W. F. Kenny et al 1.1152
Hladick, Derby Oil Co. 1.... 820
Osborne, T. M. Deal et al 1.. 728
16-26-2 Devore, Vickers Pet. Co. 1.... dry
32-29-2 Skelly, Sullivan et al 1..... dry
1-26-1w Carr, Bu Vi Bar Pet. Corp. 7. 115
Wilson, Skelly Oil Co. and Davis 10 800
Wilson, Skelly Oil & Davis 11. 200
Bright, Wentz Oil Corp. 1.... 277
12-26-1w Wright, Bu Vi Bar Pet. Corp. et al 6 538
11-26-2 McKay, T. B. Slick et al 1.... dry
21-28-1 Blood, The Texas Company 1. 470
15-26-2 Mason, Ramsey et al 1 380
22-26-2 Rapp, Barnsdall Oil Co. 1..... 100
22-26-1 Scott, Simmons & Canary 1... dry
10-28-1 Scott, Shawver et al 1..... dry
1-26-1w Carr, Bu Vi Bar Pet. Corp. et al 8 430
14-26-2 Borg, Shell Pet. Corp. 1..... dry
15-26-2 Community, Shell Pet. Corp. 3. 412

Wells completed 23
Dry 6
Production 9649

MISCELLANEOUS COUNTIES

Coffey County—
15-19-14 Jasper, R. E. Smith 1..... dry
9-22-14 Rogers, Union Gas Co. 1..... dry
6-23-15 Delmer, Ellis & Ritchie 1..... 25
Elk County—
15-31-10 Elstum, Denton et al 3..... 30
Ellis County—
13-13-18w Gerstner, Janot Brown et al 1 dry
9-13-19w Johnson, Phillips Pet. Co. 1.. 305
Harvey County—
11-23-2w Stauffer, McPherson O. & G. Co. 1 ..... dry
14-23-2w Ruth, McPherson O. & G. Co. 1 dry
Marion County—
10-18-2 Pupp, Mayre et al 1..... dry
26-19-1 Miller, Frank Moore 1..... dry
12-18-2 Rample, Shell Pet. Corp. 1..... 250
12-19-2 Nickle, Darby Pet. Co. 4..... 85
Rice County—
35-20-6w Welch "B," Prairie O. & G. 3.. dry
Rooks County—
29-9-19w Glck, Prairie O. & G. Co. 1.... dry
Saline County—
23-14-5w Dell, Kenny Coastal Co. 1 .... dry
Stevens County—
16-34-38w Kelly, Sidwell et al 1 ..... dry
Sumner County—
23-34-2w J. Douglas, Gypsy Oil Co. 2 .. dry
Woodson County—
1-26-13 Divens, Walter Otto 1 3
Divens, Walter Otto 2 3
12-26-1e Kirby, Walter Otto 1 3
13-26-13 Bovaird, C. A. Holmquist 1 .. 3
31-23-16 Andrews, S. F. Peterson 2 .... dry
35-23-14 Simpson, Kansan Oil Corp. 2 .. 10
29-23-15 Kenyon, Derby Oil Co. 1 10
Barber County—
2-33-13w Angel, Barbara Oil Co. 1 ... gas
Chautauqua County—
33-32-10 Wiggam, E. B. Miller 2 30
7-35-12 Eddinger, S. K. Crockett et al 1 dry
33-33-12 Alford, Denman Bros. 2 25
28-33-12 Martin, Denman Bros. 11 ..... gas
33-33-12 Alford, Denman Bros. 3 ..... dry
Kingman County—
16-27-7w Royl, D. P. Fleeger et al 1 .. dry
McPherson County—
18-17-1w Fross, Galt Brown Oil Co. et al 1 ..... dry
32-20-1w Hoyer, Tatlock et al 1 ..... dry
23-21-2w Payne, Helmerick & Payne 1.. dry
Bourbon County—
26-23-21 Davis, W. S. Fees 4..... 25
Montgomery County—
7-32-17 Pinkston, B. T. Head, Jr. et al 2 5
Pinkston, B. T. Head, Jr. et al 1 5
11-34-13 Kelso, J. P. Brady and M. E. Kelso 2 10
Anderson County—
27-21-19 Marshall, R. Morrison 10 25
Marshall, R. Morrison 11 20
Kellstadt, W. D. Hardee 11 20
16-22-21 Smithers, Richards & Jameson 1 22
15-21-21 Hamilton, Schermerhorn Oil Co. 1 150
16-22-21 Kennedy, R. Adams 1 ..... gas
29-20-21 Cleveland, Monitor O. & G. Co. 1 gas
15-21-21 Broadberry, Caswell & Rosell 1 85
9-22-21 Monroe, Oklahoma Natl. Gas Corp. 1 30
Monroe, Oklahoma Natl. gas Corp. 2 25
Neosho County—
18-27-20 Claus, Tex-O-Kan Oil Corp. 9.. dry
14-27-19 Rienhart, W. M. Wells 1 .... dry
Rienhart, W. M. Wells 2 ..... dry
33-27-19 Johnson, Ira D. Bigham 27 ... 5
34-27-19 Johnson, Ira D. Bigham 28 ... dry
Miami County—
24-17-21 Gravel, Allen & Grove 1 3
Gravel, Allen & Grove 2 4
Gravel, Allen & Grove 3 4
Cowley County—
18-31-5 Claybaugh, Clarence & Reiter 1 gas

Wells completed 55
Production 1220
Dry 26
Gas 5
Gas production 16,350,000

TEXAS PANHANDLE

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Carson	14	3,771	1	5
Gray	58	79,837	3	4
Hartley	1	....	..	1
Hutchinson	9	1,665	1	1
Moore	7	341	2	2
Wheeler	8	....	2	6
Total Aug.	98	85,614	9	19
Total July	42	22,880	4	7
Difference	36	62,734	5	12

Summary of Rigs and Wells Drilling

County—	Rigs	S.D.	Drlg.	Total
Carson	7	8	17	32
Gray	16	14	64	94
Hutchinson	2	4	27	33
Moore	1	1	5	7
Wheeler	4	5	13	22
Misc. counties	2	12	9	23
Total Aug.	32	44	135	211
Total July	48	32	171	251
Difference	16	12	36	40

WELLS COMPLETED

CARSON COUNTY

Noel, Delmar Oil Co. 4 875
Harrel, Travis et al 1 ..... dry
Cooper, Gulf Prod. Co. 2 450
Cooper, Midwest Explin. Co. 2 292
Schafer, Skelly Oil Co. 15 600
Schafer, Skelly Oil Co. 16 614
Burnett, Empire G. & F. Co. 17 ..... gas
Deahl, Empire G. & F. Co. 1 ..... gas
McConnell, McConnell Oil Co. 1 ..... gas
Block, Ryan Cons. Oil Co. 3 420
Fuqua, Empire Gas & Fuel Co. 1 ..... gas
Block, Ryan Cons. Oil Co. 4 120
Schafer, Skelly Oil Co. 17 400
Garner, Timms Fogarty Oil Co. 2 ..... gas

Completions 14
Production 3771
Gas wells 5
Dry holes 1
Gas production 117,000,000

GRAY COUNTY

Saunders, McMan Oil & Gas Co. 2 1700
Palmer, McMan Oil & Gas Co. 3 400
Palmer, McMan Oil & Gas Co. 2 1200
Purviance et al, Sun Oil Co. 2 476
Cook-Faulkner, The Texas Company 5 1785
Worley et al, Gulf Prod. Co. 1 710
Faulkner-A, Gulf Prod. Co. 1 3048
Chapman, Amagray Oil Co. 2 ..... gas
Morse, Biggs et al 1 ..... gas
Saunders, Panhandle Refg. Co. 1 .... dry
Saunders, Panhandle Refg. Co. 2 25
Chapman, Ray & Massie 4 ..... dry
Williams, The Texas Company 4 182
Heithholt, Anderson et al 1 90
Jackson, Phillips Pet. Co. 5 40
Bowers, The Texas Company 11 3160
Jackson, Gulf Prod. Co. 3 1010
Jackson, Gulf Prod. Co. 5 288
Morse, Nabob Oil Co. 2 200
Jackson (Joe-Dan), Phillips Pet. Co. 5 3100
Jackson (Joe-Dan), Phillips Pet. Co. 6 1920
Palmer, Phillips Pet. Co. 4 15,000
McConnell, Shell Pet. Corp. 3 ..... dry
Bowers, The Texas Company 7956
Cook-Faulkner, The Texas Company 3 901
Cook-Faulkner, The Texas Company 6 320
Patton, The Texas Company 2 102
Chapman-C, Shamrock Co. 2 100
McLarty-Lester-A, The Texas Co. 6 .. gas
McLaughlin, Champlin Refg. Co. 2 960
Jackson, Humble O. & R. Co. 2 300
Bowers-A, Gulf Prod. Co. 9 510
Bowers-A, Gulf Prod. Co. 10 600
Bowers-A, Gulf Prod. Co. 11 288
Bowers, Magnolia Pet. Co. 6 325
Jackson, McMan O. & G. Co. 1 2380
Cook-Faulkner, Operators Oil Co. 4 .. 6800
Purviance et al, Sun Oil Co. 3 485
Archer, The Texas Company 1 37
Bowers, The Texas Company 10 1250
Bowers, The Texas Company 14 1445
Jackson, The Texas Company 1 ..... gas
Patton, The Texas Company 5 280
Combs-Worley, Wilcox-Pampa Oil Co. 8 250
W. Jackson, Gulf Prod. Co. 2 55
W. Jackson, Gulf Prod. Co. 6 1400
W. Jackson, Gulf Prod. Co. 7 630
McLarty-Lester-B, The Texas Co. 2 234
Saunders, The Texas Company 11 375
Finley-Brown, Continental Oil Co. 5 .. 370
Jackson (East), Skelly Oil Co. 1 615
Jackson (East), Skelly Oil Co. 2 240
Jackson (North), Skelly Oil Co. 2 600
Jackson (North), Skelly Oil Co. 3 4500
Jackson (North), Skelly Oil Co. 4 1440
Bowers, The Texas Company 8 3200
Bowers, The Texas Company 13 6837
Patton, The Texas Company 3 350
Patton, The Texas Company 4 50

Completions 59
Production 79,837
Gas wells 4
Dry holes 2
Gas production 53,500,000

HARTLEY COUNTY

Lee Bivins-A, Canadian River Gas Co. 9 gas

Completions 1
Gas wells 1
Gas production 10,000,000

MOORE COUNTY

Harrison, Barnsdall Oil Co. 1 ..... dry
Sneed, Jr., McMan Oil & Gas Co. 3 35
Sneed, Jr., (James), Phillips Pet. Co. 5 dry
Warrick-A, Amarillo Oil Co. 2 ..... gas
Taylor, Phillips Pet. Co. 1 ..... gas
Armstrong & Byrd, Skelly Oil Co. 8 113
Armstrong & Byrd, Skelly Oil Co. 9 193

Completions 7
Production 341
Gas wells 2
Dry holes 2
Gas production 80,000,000

HUTCHINSON COUNTY

Reimer, Continental Oil Co. 2 ..... dry
Johnson Bros., C. B. Penny 1 ..... gas
Moore, Danciger et al 1 100
Johnson Bros.-Margaret, Phillips Pet. Co. 1 980
Sanford, Oil Operators Trust and Continental Oil Co. 2 20
Cockrell, Orphan Syndicate 1 10
Pitts, Sunny Jim Oil Co. 3 35
Johnson Bros. (Ebson), Phillips Pet. Co. 1 70
Sanford, Phillips Pet. Co. 4 450

Completions 9
Production 1665
Gas wells 1
Dry holes 1
Gas production 70,000,000

WHEELER COUNTY

Lamb, Lone Star Gas Co. 1 ..... gas
Mengers, A. R. Anderson 1 ..... gas
Sasher, Martin & Duboix 1 ..... dry
Hicks, The Texas Company 1 ..... gas
Bentley, Gibson Oil Corp. 8 ..... dry
McMurtry, Gillespie et al 1 ..... gas
Griswold, Lone Star Gas Co. 2 ..... gas
Gooch, Upham Gas Co. 3 ..... gas

Completions 8
Production 0
Gas wells 6
Dry holes 2
Gas production 122,000,000

WEST TEXAS FIELDS

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Andrews	1	....	1	..
Borden	1	....	1	..
Concho	1	....	1	..
Crane	8	2,842	..	..
Crockett	2	....	2	..
Glasscock	2	....	2	..
Howard	21	1,385	3	..
Irion	1	....	1	..
Jones	9	198	6	..
Loving	2	652	1	..
Midland	1	....	1	..
Mitchell	7	90	6	..
Nolan	1	....	1	..
Pecos	32	36,963	10	2
Runnels	1	....	1	..
Upton	2	628	..	..
Ward	1	130	..	..
Winkler	12	3,823	3	1
Yoakum	1	....	1	..
Total Aug.	106	45,801	40	3
Total July	61	44,720	25	..
Difference	45	1,081	15	3

Rigs and Wells Drilling

County—	Rigs	S.D.	Drlg.	Total
Crane	4	..	9	13
Crockett	2	2	4	8
Fisher	..	1	9	10
Glasscock	2	3	8	13
Howard	17	9	23	49
Jones	1	2	8	11
Mitchell	..	..	1	1
Pecos	10	19	37	66
Reagan	2	1	11	14
Runnels	..	2	1	3
Upton	..	..	2	2
Ward	4	1	9	14
Winkler	4	7	10	21
Misc. counties	10	34	40	84
Total Aug.	56	81	172	309
Total July	69	80	165	314
Difference	13	1	7	5

WELLS COMPLETED

ANDREWS COUNTY

Fisher, Mid-Continent Pet. Corp. 1 .. dry

BORDEN COUNTY

York, Louisiana Oil Refg. Co. 1 ..... dry

CONCHO COUNTY

Jones, Jones & Liner 1 ..... dry

CRANE COUNTY

University-I, Tidal Oil Co. 9 557
McElroy, Gulf Production Co. 64..... 243
Weekley (University), Warner-Quinlan Co. 4 250
Weekley (University), Warner-Quinlan Co. 5 250
McElroy, Gulf Production Co. 65 1082
McElroy, Gulf Production Co. 66 355
Waddell, Gulf Production Co. 7 ..... 7½
University-E, Tidal Oil Co. 2 ..... 97½

Completions 8
Production 2842

CROCKETT COUNTY

Massie, Moncrief et al 1 ..... dry
Andrews, Moncrief et al 1 ..... dry

GLASSCOCK COUNTY

Turner, The California Co. 1 ..... dry
Turner, A. & F. Oil Co. 1 ..... dry

HOWARD COUNTY

Dora Roberts, Amerada Pet. Corp. 11 .. 10
Dora Roberts-B, Moody Corp. 15 150
Dora Roberts, Ward Oil Co. 7 150
Chalk-E, Continental Oil Co. 5 137
Dora Roberts-A, Cosden Oil Co. 5 ..... dry
Clay, Green O. & R. Co. 3 65
Dora Roberts, Laurel & Cosden 11 10
Dora Roberts-E, Moody Corp. 16 70
Dora Roberts-E, Moody Corp. 17 70
Stewart, Amerada Pet. Corp. 2 30
Read, Gibson & Johnson 1 ..... dry
Clay, Merrick & Lamb 8 25
Dora Roberts-B, Moody Corp. 11 50
Dora Roberts-Lease 2, California Co. 7. 165
Otis Chalk, Otis Chalk 6 80
Kloh & Rumsey, Cranfill & Reynolds 2 168
Dora Roberts, Laurel & Cosden 13 75
Read, Fuhrman Pet. Corp. 1 ..... dry
Barnett Hyman, McGinley & Sigler 1 15
Dora Roberts-B, Moody Corp. 17 50
Scrivner, Pure Oil Co. 1 65

Completions 21
Production 1385
Dry holes 3

IRION COUNTY
Fayette Tankersley, Baker & Hodges 1. dry
JONES COUNTY
Horn, Knepley et al 1 ..... dry
Brown, Sedgwick O. & G. Co. 1 ..... dry
Teague, White Eagle Oil & Ref. Co. 1. dry
Camp, The Texas Company 2 50
Wheat-H, Lockhart & Co. 1 20
Whittemore, McGinley Corp. 1 ..... dry
Lou, Phillips Pet. Co. 2 ..... dry
Bickley, Cosden-Herbert et al 1 28
Camp, The Texas Company 4 100

Completions 9
Production 198
Dry holes 5

LOVING COUNTY
Johnson, Sec. 20, Lockhart & Co. 1... dry
Bowen & Wells, Lockhart & Co. 2 ... 652

Completions 2
Production 652
Dry holes 1

MIDLAND COUNTY
Stokes, Phillips Pet. Co. 1 ..... dry
MITCHELL COUNTY
Scott, Republic Prod. Co. 1 ..... dry
Ellwood, Simms Pet. Co. 1 ..... dry
Ellwood estate, Alexander et al 1 .... dry
W. L. Foster (Lease 1), The California Co. 7 90
Handley, The California Co. 1 ..... dry
Ellwood, Westyde Investment Co. 1 ... dry

Completions 7
Production 90
Dry holes 6

NOLAN COUNTY
Kuteman, Bradstreet et al 1 ..... dry
PECOS COUNTY
Smith-C, McMan Oil & Gas Co. 7 100
Yates-A, Mid-Kansas Oil & Gas Co. 6 dry
Perry, Plymouth Oil Co. 2 47
Cordova Oil Corp., Seminole Oil Co. 1 dry
University, Shell Pet. Corp. & Kirby 1.. dry
University, Tidal Oil Co. 1 ..... dry
Kloh, World Oil Co. 1 ..... dry
Smith-C, McMan Oil & Gas Co. 6 ... 25
Yates-A, Mid-Kansas O. & G. Co. 31 .. dry
Yates-G, Mid-Kansas O. & G. Co. 4 .. dry
Smith, Shell Pet. Corp. 10 135
Smith, Lease 1, Sec. 21, The California Co. 4 85
Smith, Lease 2, Sec. 26, The California Co. 4 70
Smith-B, Humble O. & R. Co. 6 1488
Sullivan, Moncrief 1 ..... dry
Eaton, Perren et al 1 ..... gas
Monroe, Phillips Pet. Co. 1 68
Yates, Gulf Prod. Co. 24 9240
University-B, Buell & Hagan 1 12
Jackson, Cromwell & Kimberlin 1 .... dry
Pecos Valley Oil Co., Doran-McGee 1 .. 20
Smith-B, Humble O. & R. Co. 7 936
Iowa Realty Tr. Co., Independent O. & G. Co. 1 ..... dry
Yates-E, Mid-Kansas O. & G. Co. 2...17088
Byrne, J. D. O'Mara 1 40
Smith-D, Shell Pet. Corp. 4 426
Smith, Lease 3, Sec. 35, The California Co. 13 3720
Webb, Webb 1 ..... gas
Tippett, McMan Oil & Gas Co. 215
Monroe, Phillips Pet. Co. 2 130
Smith, Shell Pet. Corp. 11 672
University, Taylor-Link Oil Co. 2 ...1536

Completions 32
Production 36,053
Gas wells 2
Dry holes 10
Gas production 24,100,000
RUNNELS COUNTY
Rollwitz, Independent O. & G. Co. 1... dry
UPTON COUNTY
Hughes, Pure Oil Co. 1 215
Burleson, Dixie Oil Co. 30 413

Completions 2
Production 628
WARD COUNTY
Wristen Bros., Gulf Production Co. 1.. 130
WINKLER COUNTY
Hendricks T-67-2D, Southern Crude 5... 360
Hendricks T-88-M, Southern Crude 34. 613
Clapp, Gulf Prod. Co. 1 ..... gas
Ida Hendricks, Gulf Prod. Co. 3 835
Hendricks 7-88-U, Southern Crude 10.... 600
Hendricks T-89-L, Southern Crude 1 ... 550
Hendricks T-88-CV, Southern Crude 2 .. 580
Ida Hendricks-H, Atlantic Oil Prod. Co. 1 ..... dry
Scarborough, Magnolia Pet. Co. 2 155
Leck, Shell Pet. Corp. 1 ..... dry
Leck, Skelly Oil Co. 4 130
Hendricks, Winkler Oil Prod. Corp. 1 dry

Completions 12
Production 3823
Gas wells 1
Dry holes 3
Gas production 48,976,000
YOAKUM COUNTY
Knight, Weekley Oil Corp. et al 1 .... dry

NORTH CENTRAL TEXAS

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Archer	73	1,487	35	..
Brown	32	2,041	14	2
Callahan	10	295	4	..
Clay	6	23	3	1
Coleman	30	3,702	17	4
Cooke	19	8,743	7	..
(Continued on Next Page)				
Eastland	24	537	12	4
Erath	4	....	3	1
Denton	1	....	1	..
Foard	1	182	..	..
Grayson	3	....	1	2
Haskell	1	....	1	..
Jack	12	1,435	2	..
Montague	6	153	1	1
Palo Pinto	5	205	2	1
Shackelford	38	922	18	2
Stephens	10	171	3	3
Throckmorton	3	25	2	..
Wichita	100	2,314	45	..
Wilbarger	74	6,767	13	..
Young	46	500	26	..
Total Aug.	497	29,502	207	31
Total July	336	25,684	155	9
Difference	161	3,817	42	12

Rigs and Wells Drilling

County—	Rigs	S.D.	Drlg.	Total
Archer	11	5	22	38
Brown	7	20	20	47
Callahan	4	3	8	15
Coleman	8	5	23	36
Cooke	10	3	15	28
Clay	..	2	5	7
Eastland	8	9	24	41
Erath	2	6	6	14
Haskell	..	2	4	6
Jack	2	6	17	25
Montague	2	..	2	4
Palo Pinto	..	6	4	10
Shackelford	6	1	15	22
Stephens	6	8	12	26
Throckmorton	..	2	2	4
Wichita	5	7	31	43
Wilbarger	10	33	61	104
Young	15	8	17	40
Misc. counties	2	16	14	32
Total Aug.	98	142	302	542
Total July	106	110	393	609
Difference	8	32	91	67

WELLS COMPLETED
ARCHER COUNTY
Taylor, Brown and United Prod. Co. 6.. 60
McCrory-M, L. T. Burns 3 28
McCrory-M, L. T. Burns 4 70
Oil Inv. Co., Gwynn-Archer Drlg. Co. 3. 40
Campbell, Kemrow Prod. Co. 6 ..... dry
Mankins, Pace e. al 1 5
Mankins, Pace et al 2 ..... dry
Wilson, Perkins, Cullum et al 11 15
Falls County Sch. Land, Bridwell Oil and Continental 1 20
Logan et al, Bridwell Oil Co. and Continental 2 15
Falls County Sch. Land, Continental Oil 3 ..... dry
Richardson-B, Continental Oil Co. 8 .. dry
Prideaux, Estacado Oil Co. 5 15
Hennig, Freeman 7 30
Roach, Gilliland 4 25
Kinkel, Humble O. & R. 5 175
Portwood, Magnolia Pet. Co. 1 ..... dry
Kunkel-B, Pet. Prod. Co. et al 6 175
Kunkel-B, Pet. Prod. Co. et al 7 35
Young, Young 2 ..... dry
Staley, Archer Drlg. Co. 1 10
Wilson-A, Barnsdall Oil Co. 7 30
Rutty-B, Magnolia Pet. Co. 11 3
Wilson, Sec. 2, McCarty Oil Co. 1 12
Andrews-A, Perkins, Cullum et al 1 ... 12
Miller, Pois-Schults et al 5 ..... dry
Lyles, Shappell Oil Co. 8 42
Pruett, Bradstreet Co. 1 ..... dry
Falls Co., Cullum and Prairie O. & G. 1 25
Hamilton, Humble O. & R. Co. 21 .... dry
Garvey, Johnson 1 ..... dry
Justice, Magnolia Pet. Co. 1 5
Bloodworth, Moran Drlg. Co. et al 2 .. 50
Scot., Moran Drlg. Co. and Independent O. & G. Co. 3 ..... dry
Richardson, Pet. Prod. Co. and Hines 1 dry
Richardson-B, Prairie O. & G. Co. 28 .. 10
Andrews, Underwood Drlg. Co. et al 4. dry
Andrews, Bridwell Oil Co. 1 ..... dry
Wilson-M, Burns 5 ..... dry
Lyles, Shappell Oil Co. 9 ..... dry
Wilson-J, United Prod. and Pet. Prod. 2 dry
Wilson-K, United Prod. and Pet. Prod. 1 dry
Logan et al, Bridwell Oil Co. and Continental 4 12
Garvey, Burns and The Texas Co. 1 .. dry
Kunkel, Humble O. & R. Co. 6 235
Bloodworth, Moran Drlg. Co. and Independent O. & G. Co. 3 10
Williams, Peacock 2 ..... dry
Kunkel-B, Pet. Producers Co. et al 8 .. 52
Kunkel-B, Pet. Producers Co. et al 9 .. 32
Ward, Stump & Co. 1 ..... dry
Bounds, Williams 1 ..... dry
Young, Young 3 ..... dry
Wilson-O, Burns 1 32
Thompson, Gwynn et al 5 110
McCrory, tr., Lomax, Thornton, Jr. 1 .. dry
Reilly, Pace 1 ..... dry
Parrish, Rathke Oil Co. 2 6
White, Stump & Monninger 1 ..... dry
Prideaux, Atlantic Oil Prod. Co. and Johnston 2 7
Falls Co. fee, Bridwell Oil Co. 2 18
Logan-A, Continental Oil Co. 3 7
Knight et al, Continental and Cullum 1 dry
Thomas-C, Pandem Oil Corp. 1 ..... dry
Terrell, Parson et al 1 ..... dry
Richardson, Ruff et al 1 ..... dry
Andrews, Underwood Drlg. Co. et al 5.. dry
Kinder, Baggett 2 ..... dry
Wilson-O, Burns 2 ..... dry
Wilson-E, King-Corlett & White 1 .... dry
Prideaux, Estacado Oil Co. et al 6 5
Logan-A, Humble O. & R. Co. and Fain-McGaha Oil Corp. 4 18
Ward, The Texas Co. and Burns 1 .... dry

Completions 72
Production 1487
Dry 35

BROWN COUNTY
Cross, Buder, trustee, 5 150
Armstrong, Humble O. & R. Co. 23 .... dry
Duff, Lloyd Oil Corp. 3 120
Bell, H. A. Beasley 1 ..... dry
Miller, Bearman 4 12
Armstrong, Humble O. & R. Co. 22 30
Byler, Humble O. & R. Co. 13 ..... dry
George, Smith Oil Co. 1 408
Jopling, Shaw 1 7
Armstrong, Beall, Gully & Michael 1 .. dry
Moore, Green Prod. Co. 8 20
Cannon, Owens, Inc., et al 2 30
Johnson, The Texas Co. 3 67
Mayes, Gore & Brown 4 ..... dry
Guyer, Nystel et al 1 2
Cross, Buder, trustee, 6 50
Barclay, Cranfill & Reynolds 1 ..... dry
George, Owens, Inc., et al 1 ..... dry
George, Sinclair O. & G. Co. 1 ..... dry
George, Smith Oil Co. 2 250
Broocke, Superior O. & G. Co. et al 1.. dry
Kessler, The Texas Co. 1 377
Kilgore Bros., Young Bros. et al 10 ... dry
McCulley, Green Prod. Co. 2 ..... gas
Tervooren, Humble O. & R. Co. 4 ..... dry
Looper, Van Bibber et al 1 ..... dry
Cason, Bowers and Vacuum Oil Co. 1. dry
Bull, Estacado Oil Co. 2 ..... dry
Davis, Green Prod. Co. 4 150
Hickman-B, Humble O. & R. Co. 2 350
Sutties, Mitcham 1 ..... gas
Cannon, Owens et al 3 8

Completions 32
Production 2041
Gas 2
Dry 14

CALLAHAN COUNTY
Cavenaugh-A, Bradstreet & Holden 3 .. 70
Biggerstaff, Bremen 2 ..... dry
Windham, Condor Pet. Co. 1 ..... dry
Cook, Cook et al 1 ..... dry
Cavenaugh-A, Bradstreet & Holden 4 ... 40
Miller, Bradstreet & Holden 14 40
Alexander, Campbell 1 100
Johnson, Mook-Texas et al 1 15
Cavenaugh-A, Bradstreet & Holden 5 .. 30
Jackson-B, Drew Beams 5 ..... dry

Completions 10
Production 295
Dry 4

CLAY COUNTY
Landrum, Belcher et al 1 ..... dry
Johnson-B, Mid-Continent Holding Co. 1 2
Johnson-B, Mid-Continent Holding Co. 2 1½
Stine et al-A, Mid-Cont. Holding Co. 4 gas
Stine et al-A, Mid-Cont. Holding Co. 5 20
Wolf, Wirt Franklin 1 ..... dry

Completions 6
Production 23½
Gas 1
Dry 2

COLEMAN COUNTY
Fuller, Jr., Chapman et al 3 ..... dry
Parker, Owens, Inc., 1 ..... dry
Babbington-A, Dallas Pet. Co. 2 10
Crowder, Tower & McKanna 1 ..... gas
Vance, Cranfill & Reynolds et al 1 .... dry
Morris-A, Eastland Oil Co. 10 854
Pirtle, Clark & Cowden 1 ..... dry
Hutchings, Jamison, Pollard & Forester 1 ..... gas
Rendleman, Joines 1 ..... dry
Hutchings, Mattocks & Midsum Oil 1.. dry
Russell, Smith & Shaffer 3 ..... gas
Keeney-A, Eastland Oil Co. 4 ..... dry
Keeney-A, Eastland Oil Co. 5 675
Powell, Gutzman & Aldrich 1 ..... dry
Keeney, Mid-West Explin. Co. 3 495
Keeney, Owens, Inc., 1 ..... dry
McAdams, Anzac Oil Corp. et al 1 ..... dry
Overall, Continental Oil Co. et al 13 .. 264
Shirmacher, Simpson, White & Pinkerton 2 ..... gas
Baker, Taylor-Link Oil Co. 2 8
Weaver, Broderick & Calvert 2 ..... dry
Morris-A, Eastland Oil Co. et al 8 31
Morris-A, Eastland Oil Co. et al 11 750
Morris, White Eagle O. & R. Co. 5 615
McAdams, Brooks & Humphrey 1 ..... dry
Sears, Brooks & Humphrey 1 ..... dry
Sears, Brooks & Humphrey 2 ..... dry
Oliver, Humphrey Bros. 1 ..... dry
Breneke, Owens, Inc., et al 1 ..... dry
Pierce, Van Bibber et al 1 ..... dry

Completions 39
Production 3702
Gas 4
Dry 17

COOKE COUNTY
Huggins, Danciger O. & R. Co. 1 289
Timmis-B, Kewanee O. & G. Co. 6 .....437½
Field & Bowers, Humble O. & R. Co. 2. 210
Timmis-B, Kewanee O. & G. Co. 5.....1690
Haverkamp, Benson Bros. 2 ..... dry
Huggins, Danciger O. & R. Co. 3 358
Campbell, Faith Oil Co. 1 ..... dry
Tomlinson, Faith Oil Co. 1 ..... dry
Field & Bowers, Humble O. & R. Co. 3. dry
Poteet, Humble O. & R. Co. 3 198
Deering, Hooser and The Texas Co. 1.. dry
Gwynn, Pet. Producers Co. 1 ..... dry
Huggins, Danciger O. & R. Co. 2 310
Huggins, Danciger O. & R. Co. 4 280
Harris, Daniel 1 ..... dry
Huggins, Fain-McGaha Oil Corp. 2 100
Huggins, Fain-McGaha Oil Corp. 3 70
Poteet, Humble O. & R. Co. 4 810
Field & Bowers, Shell Pet. Corp. 1 118

Completions 19
Production 8713
Dry 7

EASTLAND COUNTY
Simmons, Conway Bros. and Champion 5 dry
Good, Belva Oil Co. 8 140
Stubblefield, Chestnut & Smith Corp. 1 dry
Harbin, Lewis & Moore 4 134
Webb, Southern O. & P. Co. 1 6
Kurklin-B, Chestnut & Smith 1 120
Spencer, Forster et al 2 3
May, Fulcher 1 ..... dry
Storm, Lone Star Gas Co. 1 ..... gas
Ainsworth et al, Atwood et al 1 ..... dry
Cunningham-B, Dyar Bros. 2 ..... dry
Oldham, Kirk et al 1 ..... dry
Fleming, Chesnut & Smith Corp. 1 ..... dry
Green, Thompson et al 1 ..... dry
Allen est., Lone Star Gas Co. 1 ..... gas
Pippin, Hopkins et al 1 ..... dry
Murrell-B, Texwa Oil Co. and Kirk 1 .. 48
Turner, Texwa Oil Co. and Kirk 3 96
Lyerla, Arkansas Fuel Oil Co. 8 ..... dry
Casey, Garrett & Moore et al 1 ..... gas
Sibley, Mook-Texas Oil Co. 10 ..... gas
MacMullin, Arnold 1 ..... dry
Spencer, Forster et al 3 ..... dry
Murrell et al, Whitesides Bros. 1 ..... gas

Completions 24
Production 537
Gas 4
Dry 12

ERATH COUNTY
Ray Owens 1 ..... dry
Robertson, Boon et al 1 ..... dry
Lowe, Kelsey et al 1 ..... dry
Gibson, Cranfill & Reynolds and Amerada 1 ..... gas

Completions 4
Gas 1
Dry 3

DENTON COUNTY
Curtis, Elliott & Moore 1 ..... dry
FOARD COUNTY
Johnson, Shell and Fain-McGaha Oil 1. 182
GRAYSON COUNTY
Getzendaner, F. H. E. Oil Co. 1 ..... dry
Wall, Murchison Oil Co. 3 ..... gas
Dalton, Sherman Oil Co. 2 ..... gas

Completions 3
Gas 2
Dry 1

HASKELL COUNTY
Keefer, Barnes et al 1 ..... dry
JACK COUNTY
McKelvey, Panhandle Refg. Co. 2 30
Smith, Panhandle Refg. Co. 3 95
Boyd, Buttram Pet. Co. 1 118
Maxey, Fluety 2 ..... dry
Box, Panhandle Refg. Co. 1 74
Leffel-Box, F. H. E. Oil Co. 4 145
Dougherty, F. H. E. Oil Co. 2 ..... dry
Leffel-Box, Harper 3 350
Leffel-Box, Harper 4 460
Shanafelt, Pet. Prod. Co. and The Texas Company 2 52
Bryson, Prairie O. & G. Co. 3 25
Bryson, Prairie O. & G. Co. 5 86

Completions 12
Production 1435
Gas wells 0
Dry holes 2

MONTAGUE COUNTY
Edmondson, Bridwell Oil Co. 3 25
Edmondson, Bridwell Oil Co. 4 58
Gaston, Claude Bell et al 1 ..... dry
Cunningham et al, Carter & Rycade 9.. 30
Cunningham et al-A, Farlyn Oil Co. 2.. gas
Hinton, The Texas Company 4 40

Completions 6
Production 153
Gas wells 1
Dry holes 1

PALO PINTO COUNTY
Costello, Prairie O. & G. Co. and Montgomery 1 55
Diamond Furniture Co., Rochelle 1 .... dry
Costello, Panhandle Refg. Co. 1 ..... gas
Costello, Schnaufer 1 ..... dry
Stuart et al, T. P. Coal & Oil Co. 159 .. 150

Completions 5
Production 205
Gas wells 1
Dry holes 2

SHACKELFORD COUNTY
Hill, Ackerman & Scriver 1 ..... dry
Russ-Webb, Big State Oil Co. 9 40
Crow, McMeans 2 ..... dry
Cook-A, Roeser & Pendleton and Continental 43, Sec. 61 50
Cook-A, Roeser & Pendleton and Continental 44, Sec. 61 40
Cook-A, Roeser & Pendleton and Continental 14, Sec. 62 ..... dry
Cook-A, Roeser & Pendleton and Continental 5, Sec. 88 ..... gas
Cook-A, Roeser & Pendleton and Continental 8, Sec. 88 ..... gas
Green, Schulman 1 ..... dry
Dyer, Simms Pet. Co. 1 ..... dry
Newell, Tannehill Oil Co. 22 67
Matthews, Vacuum Oil Co. 4-C 100
Matthews, Combest Oil Co. 4 ..... dry
Bowman, Gibson & Johnson 1 ..... dry
Jackson, Holder 1 ..... dry
Hill, Hughes 2 10
Newell, James 1 15
Newell, Reading, Sedgwick & Webb 1 .. dry
Cook-A, Sec. 61, Roeser & Pendleton and Continental 45 35
Nail, George Callahan 3 10
Matthews-B, Dull & Earl 2 ..... dry
Moberly, Johnson Gilbert, Inc. 1 ..... dry
Moberly, Manning et al 4 15
Cook-A, Sec. 88, Roeser & Pendleton and Continental 12 ..... dry
Morris & Buis, Sedgwick O. & G. Co. 1. 35
Matthews, Tannehill et al 6 50
Matthews, Combest & Adkins 1 ..... dry
Newell, Tom James 1 ..... dry
Matthews, Prairie O. & G. Co. 1 5
Cook-A, Sec. 61, Roeser & Pendleton and Continental 46 38
Cook-A, Sec. 61, Roeser & Pendleton and Continental 47 ..... dry
Cook-A, Sec. 88, Roeser & Pendleton and Continental 7 102
Newell, Tannehill et al 23 ..... dry
Hill, Hughes 3 ..... dry
Moberly, Moutray Oil Co. 1 ..... dry
Cook-A, Sec. 88, Roeser & Pendleton and Continental 10 60
Cook-A, Sec. 88, Roeser & Pendleton and Continental 11 100
Cook-A, Sec. 88, Roeser & Pendleton and Continental 13 150

Completions 38
Production 922
Gas wells 3
Dry holes 18

THROCKMORTON COUNTY
Tuton, Combest Oil Co. 1 ..... dry
Matthews, Hays & Hodges 1 ..... dry
Upshur Co. School Land, Shappell Oil Co. 2 25

Completions 3
Production 25
Dry holes 2

STEPHENS COUNTY
Creagh, Clark et al 1 ..... dry
Brooks, Lone Star Gas Co. 2 ..... gas
Glasscock, Norman et al 1 ..... gas
Curry, Texas Cons. Oil Co. 1 20
Pratt, Pitzer & West 1 ..... dry

Elliott, Close Oil Co. 1 ..... gas
Manning, Shaw 1 120
Hefley, Texas-La. Power Co. 1 ..... gas
Binney, T. P. Coal & Oil Co. 76 25
Rogers, Prairie Oil & Gas Co. 2 ..... dry

Completions 10
Production 171
Gas wells 3
Dry holes 3

WICHITA COUNTY

Roller, American Refg. Prop. 1 2
Kemp & Kempner, Coleman Coppock 21 9
Burnett-E, Continental Oil Co. 14 30
Waggoner Bros., Cooper & Mishler 15 .. 18
Waggoner Bros., Golding & Cochran 7.. 15
Ferguson, Grayback Dev. Co. 1 ..... dry
Burnett et al-A, Harry Hines 7 50
Michie-A, Riner & Bailey 8 94
Crudup, Stump-Melat-Graham 1 187
Waggoner Bros., The Texas Company et al 6 240
Waggoner Bros., The Texas Company et al 8 260
Allen & Kemp-F, United Prod. Co. 3 .. dry
Munger-A, United et al 1 25
Munger-B, United et al 1 40
Morgan, Comac Drilling Co. 2 2
Dodson-A, Continental Oil Co. 1 ..... dry
Jenne, Hunter 1 ..... dry
Rhodes et al, Mid-Cont. Holding Corp. 1 20
Rhodes et al, Mid-Cont. Holding Corp. 2 ..... dry
Rhodes et al, Mid-Cont. Holding Corp. 3 15
Rhodes et al, Mid-Cont. Holding Corp. 4 16
Wilkerson et al, Mid-Cont. Holding Corp. 1 20
Wilkerson et al, Mid-Cont. Holding Corp. 2 25
Wilkerson et al, Mid-Cont. Holding Corp. 3 10
Gardner, Whittaker & Hamilton 1 .... dry
Burnett et al, Aiken & Rayzor 1 ..... dry
Denny, Bradstreet et al 1 ..... dry
Waggoner Bros.-D, Bradstreet Co. 1 .. dry
Jennings-C, Lee Bullington et al 3 8
Honaker, Donnell 1 ..... dry
Bradley, Hammon 3 ..... dry
Foster & Allen, Howell 2 ..... dry
Donehoo, King Royalty Co. 18 2
Roller, Reno & Goldsmith 3 12
Michie-B, Riner & Bailey 6 ..... dry
Nance, Ryan Pet. Corp. 109 ..... dry
Whittenbach, Sheldon 1 26
Foster & Allen, Sikes 1 ..... dry
Ferguson, Stump & Heydrick 3 ..... dry
Waggoner Bros., Stump & King Royalty Co. 1 ..... dry
Mangold, The Texas Company 3 ..... dry
Chilson, Melat-Graham-Christie 1 30
Waggoner Bros.-C, Continental Oil Co. 3 dry
Waggoner Bros., Golding & Cochran 8.. 120
Waggoner Bros.-D, Hammon 1 ..... dry
Cooper, Hunter 1 ..... dry
Reilly, Magnolia Pet. Co. 142-A ..... dry
McClure-B, Akin & Rayzor et al 6 20
McClure-B, Akin & Rayzor et al 7 15
McClure-B, Akin & Rayzor et al 8 8
McClure-B, Akin & Rayzor et al 9 8
McClure-B, Akin & Rayzor et al 10 40
Kemp & Kempner, Arkansas Natural Gas Co. 18 60
Jennings-C, Bullington & Pendleton 5.. 18
Bishop, Comac and Prairie O. & G. Co. 8 60
Overby, Comac Drilling Co. 1 ..... dry
Waggoner, Eureka Prod. Co. 14 42
Waggoner, Golding & Cochran 9 65
Munger, Hammon 1 ..... dry
Munger, Henry Hobbs 3 ..... dry
Waggoner, Humble & Hines 3 60
Waggoner-C, Hunter 5 75
Ramming, Magnolia Pet. Co. 6 4
Waggoner, Magnolia Pet. Co. 1 ..... dry
Waggoner, Mount et al 3 ..... dry
Michie-A, Riner & Bailey 9 90
Michie-A, Riner & Bailey 10 25
Waggoner, J. G. Rowe et al 5 10
Waggoner, Ven Mex Oil Co. 20 85
Waggoner, Ven Mex & Hines 1 ..... dry
Dodson-A, Continental Oil Co. 1 ..... dry
Parker, Duncan & White 1 ..... dry
Donehoo, Magnolia Pet. Co. 15 ..... dry
Crudup, Stump-Melat-Graham 2 73
Parker et al, Swanner 1 ..... dry
Norwood, Temple 1 ..... dry
Love, Bradstreet Co. 1 ..... dry
Kemp & Kempner (Deep), Coleman & Coppock 1 40
Waggoner, Culberson Co. 55 ..... dry
Waggoner, Culberson Co. 56 30
Waggoner, Culberson Co. 57 ..... dry
Waggoner, Culberson Co. 58 ..... dry
Waggoner, Culberson Co. 59 10
Waggoner, Culberson Co. 60 20
Waggoner, Culberson Co. 61 ..... dry
McClure, Cunningham & Pennell 1 3
McClure, Cunningham & Pennell 2 3
McClure, Cunningham & Pennell 3 4
McClure, Cunningham & Pennell 4 4
Gibson, Everts & Jamison 1 75
Waggoner Bros., Humble & Hines 4 .. 15
Rio Bravo, O'Neil 29 ..... dry
Rio Bravo, O'Neil 30 65
Rio Bravo, O'Neil 31 ..... dry
Rio Bravo, O'Neil 32 ..... dry
Boyd, King Royalty Co. (key well) 6 .. dry
Roller, Reno & Goldsmith 4 11
Michie-A, Riner & Bailey 11 ..... dry
Michie-A, Riner & Bailey 12 ..... dry
Waggoner, The Texas Company 361 ... dry

Completions 100
Production 2314
Dry holes 45

WILBARGER COUNTY

Waggoner, Bradstreet & Grisham 1 135
Waggoner-O, Consolidated Oil Co. 7 25
Waggoner-A, Derby Oil Co. 5 ..... dry
Waggoner-E, Easter Oil Co. 1 40
Waggoner-A, Empire Gas & Fuel Co. 7. 183
Waggoner-Y, Fain-McGaha Oil Corp. 3. 37
Waggoner-H, Golding Cochran et al 1. 40
Waggoner (Boggy Creek), Grayback Development Co. 6 86
Waggoner-B, King Royalty Co 3 80
Waggoner-A, Lawson 5 150
Waggoner, Phillips Pet. Co. 2 194
Waggoner, Robert Oil Co. 1 113
Waggoner-G, Staley Wynne & Co., 8 .. 75
Waggoner-G, Staley Wynne & Co. 10 .. 80
Waggoner-P, The Texas Company 1 ... dry
Waggoner-J, Waggoner Refg. Co. 5 220
Waggoner-J, Waggoner Refg. Co. 6 200
Waggoner-B, Baker et al 12 42
Waggoner-C, Barkley & Meadows 10 .. 85
Waggoner-M, Burton 1 ..... dry
Waggoner, Carter 3 46
Waggoner-O, Consolidated Oil Co. 6 190
Waggoner-O, Consolidated Oil Co. 8 ... 105
Waggoner-B, Empire Gas & Fuel Co. 13 198
Waggoner-B, Empire Gas & Fuel Co. 17 128
Waggoner-A, Knight 5 110
Waggoner-B, Lewis Prod. Co. 3 100
Waggoner-G, Staley Wynne & Co. 5 189
Waggoner, The Texas Company 364 .... dry
Waggoner-E, The Texas Company 18 .. 80
Waggoner-H, Baker 2 ..... dry
Waggoner-B, Barkley & Meadows 2 .. 160
Peckham-Waggoner-C, Burton 1 ..... dry
Waggoner-C, Empire Gas & Fuel Co. 1 24
Waggoner-C, Empire Gas & Fuel Co. 8 20
Waggoner-W, Fain-McGaha Oil Corp. 14 144
Waggoner-W, Fain-McGaha Oil Corp. 15 75
Waggoner-Allman, Grayback Dev. Co. 1 100
Waggoner, Boggy Creek, Grayback Dev. Co. 10 ..... dry
Waggoner, Peckham et al 1 ..... dry
Waggoner-S, Phillips Pet. Co. 4 47
Smith, Shappell Oil Co. 1 ..... dry
Waggoner-G, Staley Wynne & Co. 9 25
Waggoner, Burton 1 ..... dry
Waggoner, Clark et al 3 75
Waggoner-O, Consolidated Oil Co. 9 ... 75
Waggoner-B, Empire G. & F. Co. 14 .. 30
Waggoner-W, Fain-McGaha Oil Corp. 16 110
Waggoner-Y, Fain-McGaha Oil Corp. 5. 85
Waggoner-J, Golding Cochran et al 1.. 100
Waggoner-K, Golding Cochran et al 1.. 45
Waggoner (Boggy Creek), Grayback Dev. Co. 11 85
Waggoner-MM, Phillips Pet. Co. 6 ..... dry
Waggoner-RR, Phillips Pet. Co. 3 10
Waggoner, Sec. 35, Smith 1 173
Waggoner-G, Staley-Wynne & Co. 6 145
Waggoner-S, Staley-Wynne & Co. 2 70
Waggoner-J, Waggoner Refg. Co. 7 165
Waggoner-J, Waggoner Refg. Co. 8 195
Waggoner, Apple Brandeberry 2 42
Waggoner-A, Empire Gas & Fuel Co. 6 138
Waggoner-A, Empire Gas & Fuel Co. 8 330
Waggoner-W, Fain-McGaha Oil Corp. 17 250
Waggoner-B, Bateman, Golding & Cochran et al 1 ..... dry
Waggoner, Boggy Creek, Grayback Dev. Co. 5 ..... dry
Waggoner-B, Lewis Prod. Co. 4 100
Waggoner-B, Lewis Prod. Co. 5 90
Waggoner-A, Melat Oil Co. 9 105
Waggoner-E, Staley Wynne & Co. 1 155
Waggoner-E, Staley Wynne & Co. 3 210
Waggoner-G, Staley Wynne & Co. 11 ... 136
Waggoner-E, The Texas Co. 19 130
Waggoner-M, Waggoner Refg. Co. 1 72
Waggoner-M, Waggoner Co. 2 120

Completions 74
Production 6767
Dry holes 13

YOUNG COUNTY

Richardson-B, Bradstreet Co. 3 30
Cullers, Bridwell & Clark 1 10
Cullers, Bridwell & Clark 2 10
Campbell, Camp Oil & Gas Co. et al 1.. dry
Pitman-A, Panhandle Refg. Co. 2 ..... dry
Carpenter, Parks et al 3 25
Bentley, Stafford 1 ..... dry
Andrews, Stewart Wooten & Reed 1.. dry
Drum, Williams et al 1 ..... dry
Logan, Archer Drilling Co. et al 1.... dry
Barrett, Carpenter 2 40
Brown, Panhandle Refg. Co. 1 ..... dry
Carpenter, Parks et al 4 ..... dry
Bentley, Stafford 2 ..... dry
Snider, Steed & Gaus 17 17
Carpenter, United Royalty et al 1..... 24
Calvin, Wise & Jackson 10 7
Hunt, Boller et al 3 ..... dry
Hunt, Boller et al 4 ..... dry
Barrett, Carpenter 3 10
Barrett, Carpenter 4 30
Hankins, Cooper & Hill 1 ..... dry
Eichelberger McMeans 1 ..... dry
Clark, Perkins et al 1 ..... dry
Lemmond, Perkins & Cullum 1 45
Dean, Richardson & Dresser 1 10
Ward, Tucker & Miller 1 ..... dry
Carpenter, United Royalty et al 2.. 15
Burch, Pandem Oil Corp. 1 30
Rhodes, Pandem Oil Corp. 1 40
Payne, Scott & Nance 1 50
Willis, Simms Pet. Co. 2 ..... dry
Barrett, Carpenter 5 50
Carpenter, Parks et al 5 44
Jack-C, Rannell Oil Co. 3 5
Jones, Robertson Drlg Co. 1 ..... dry
Carpenter, United Royalty Co. et al 3.. dry
McDonald, Wise & Jackson 1 ..... dry
Driver, Continental Oil Co. 12..... dry
Campbell-A, Camp O. & G. Co. 1..... dry
Barrett, Carpenter 7 8
Pittman-A, Panhandle Refg. Co. 3.... dry
Stephens Roach Co., Panhandle Refg. 1. dry
Dean, Richardson & Dresser 2 ..... dry
Brown, Stafford 2 ..... dry
Carpenter, United Royalty et al 4..... dry

Completions 46
Production 500
Dry holes 26

EAST CENTRAL TEXAS

Summary of Field Operations

County—	Comp.	Prod.	Abd.	Gas	Rigs	Dlg.	Ttl.
Anderson	1	50	0	0	1	7	8
Cherokee	0	0	0	0	0	1	1
Falls	1	0	1	0	0	2	2
Fannin	1	0	1	0	0	0	0
Grimes	1	0	1	0	0	0	0
Henderson	1	0	1	0	0	0	0
Hill	1	0	1	0	0	2	2
Leon	0	0	0	0	0	2	2
Limestone	2	0	2	0	0	3	3
Milam	2	0	1	1	0	2	2
Navarro	1	0	1	0	0	2	2
Robertson	1	0	1	0	0	0	0
Rusk	0	0	0	0	0	1	1
Upshur	0	0	0	0	0	1	1
Van Zandt	1	0	1	0	0	1	1
Total Aug.	13	50	11	1	1	24	25
Total July	15	300	14	0	1	32	33
Difference	2	250	3	1	0	8	8

WELLS COMPLETED
ANDERSON COUNTY

Boggy Creek-Todd, Humble O. & R. 3-A 50

FALLS COUNTY

Jones, Killiam & Phillips 2 ..... abd

FANNIN COUNTY

Owens, Imperator Oil Co. 1 ..... abd

GRIMES COUNTY

Kelly, Deering et al 1 ..... abd

HENDERSON COUNTY

Cade, Henderson Pet. Co. 1 ..... abd

HILL COUNTY

Coates, McElmurry et al 1 ..... abd

LIMESTONE COUNTY

Mexia-Thompson, C. F. Lytle et al 1 .. abd
Jones, A. F. Richardson 1 ..... abd

MILAM COUNTY

Knight, E. L. Chapman 21 ..... abd
White, Milam O. & G. Co. 2 ..... gas

NAVARRO COUNTY

Finch, Riverland Oil and Tidal Oil 2 abd

ROBERTSON COUNTY

Anderson, Alexander et al 1 ..... abd

VAN ZANDT COUNTY

Davis, Pure Oil Co. 1 ..... abd

SOUTHWEST TEXAS FIELDS

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Mirando	16	1,285	8	6	9	34	43
Dobrowolski	1	5	0	0	1	0	1
Gas Ridge	1	3	0	0	0	0	0
Joe Bruner	32	8,470	4	0	0	15	15
Refugio	11	4,200	4	1	4	16	20
Misc.	16	75	13	2	15	96	111
Total Aug.	77	14,038	29	9	29	161	190
Total July	124	12,186	64	11	34	103	127
Difference	47	1,852	35	2	5	58	63

WELLS COMPLETED
SCHOOLFIELD & O'BYRNE—DUVAL

Moody, S. & O. 5 75
Hahl, Magnolia Pet. 5 960
Hahl, S. & O. 6 75
Hahl, Magnolia Pet. 4 100

HUMBLE FIELD

Kohler, Humble Oil & Ref. 31 75
Lopez, Sun Oil Co. 1 ..... abd
Kohler, Humble Oil & Ref. 32 ..... gas
Kohler, Humble Oil & Ref. 23 ..... abd

DRISCOLL FIELD

Hyatt, The Texas Company 1 ..... abd

RANDADO FIELD—JIM HOGG

Leyendecker, T. J. Conway 1 ..... abd

HENNE-WINCH & FARISS

Holbien, W. R. Shankle 1 ..... gas
Martinez, Magnolia Pet. 1 ..... gas

COLE FIELD—WEBB

Bruni, O. W. Killam ..... abd
Benavides, J. J. O'Hern ..... gas
King-Harper, Shepard 1 ..... gas
Benavides, Magnolia Pet. 1 ..... gas
Billings, O. W. Killam 6 ..... abd
Garcia, Crown Central 1 ..... abd

JENNINGS—ZAPATA

Cuellar, Killam-Duggan 5 300
Trevino, H. Muckelroy 2 ..... abd

Wells completed 20
Production 1285
Dry 8
Gas 6
Gas production 142,000,000

DOBROWOLSKI—BEXAR

Schmetz, W. W. Richardson 1 5

GAS RIDGE

Hamilton Land, Medio Oil Co. 2 3

JOE BRUNER—CALDWELL

Smith, Shell Petroleum 2 40
Northcut, Cranfill & Reynolds A-3 .... abd
Merriwether, T. C. Hadley 3 30
Northcut, Cranfill & Reynolds A-2 450
Northcut, Gulf Production 5 400
Northcut, Gulf Production 7 1700
Gray, Humble Oil & Ref. B-2 200
Moses-Baggett, Humble O. & R. B-8 .. 300
Moses-Baggett, Humble O. & R. B-10.. 150
Moses-Baggett, Humble O. & R. B-12.. 75
Dye, Luling Oil & Gas 5 225
Gray, Luling Oil & Gas A-4 200
Gray, Luling Oil & Gas A-5 550
Gray, Luling Oil & Gas A-7 600
Johnson, Luling Oil & Gas A-4 200
Gray, Luling Oil & Gas C-5 200
Johnson, Luling Oil & Gas A-5 300
Tiller, Luling Oil & Gas 6 500
Davis, Nash, Windfohr, Perry C-3 125
Hanson, Cranfill & Reynolds 3 ..... abd
Northcut, Humble Oil & Ref. A-3 ..... abd
Northcut, Humble Oil & Ref. A-2 50
Northcut, Humble Oil & Ref. B-3 700
Moses-Baggett, Humble Oil & Ref. B-9. 200
Moses-Baggett, Humble Oil & Ref. B-11 125
Smith, Humble Oil & Ref. B-1 75
Smith, Humble Oil & Ref. B-2 500
Gray, Humble Oil & Refining C-4 200
Johnson, Luling Oil & Gas B-4 125
Northcut, Humble Oil & Ref. A-5 ..... abd
Gray, Luling Oil & Gas A-3 200
Merriwether, The Texas Company 10 .. 50

Wells completed 32
Production 8470
Dry 4

REFUGIO FIELD—REFUGIO

Heard, Saxet Gas Co. 8 400
Saxet Gas Co. 1 700
Ryals, Oigufer Oil Co. 2 2400
Heard, Benedum & Trees 4 ..... abd
Rooke, Houston Gulf Gas 2 ..... abd
Fox, T. P. Morgan 1 ..... abd
Fox, T. P. Morgan 1 ..... abd
Lambert, Houston Gulf Gas 9 ..... gas
Ryals, Houston Gulf Gas 4 300
Rooke, Houston Oil Co. 12 100
Shay, Mission Drilling Co. 1 300

Wells completed 11
Production 4200
Gas 1
Dry 4
Gas production 40,000,000

MISCELLANEOUS

Bastrop County—
Rundus, Nelson et al 1 ..... abd
Lottman, Gypsy Prod. Co. 1 ..... abd
McCall, E. W. Ogden 1 ..... abd
Brooks County—
Riley Allen, Milam Drilling 4 ..... abd
Bee County—
Ray, Mission Drilling Co. 1 ..... abd
Caldwell County—
Horner, Whittington 1 ..... abd
Cardwell, Frazier-Radcliff & Noonan 1 abd
Dauchy, Cranfill & Reynolds 1 ..... abd
Keefer, M. O. Rayor 1 ..... abd
Miller, J. A. Harper 1 ..... abd
Brown, Al Buchanan 1 75
Medina County—
Farms, Pearson Oil Co. 3 ..... abd
Farms, Pearson Oil Co. A-2 ..... abd
Milam County—
Southern, Milam Oil & Gas 1 ..... abd
Nueces County—
Allen, R. & G. Corp. 2 ..... gas
San Patricio County—
Fee, Spender & Rhodes 1 ..... gas

Wells completed 16
Dry 13
Production 75
Gas 2
Gas production 90,000,000

EAST TEXAS

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	*Rigs	Dlg.	Ttl.
Bowie	0	0	0	0	0	1	1
Camp	0	0	0	0	0	1	1
Harrison	3	0	0	3	1	1	2
Marion	1	150	0	0	0	0	0
Panola	5	0	1	4	3	8	11
Red River	0	0	0	0	0	3	3
Shelby	0	0	0	0	1	2	3
Total Aug.	9	150	1	7	5	16	21
Total July	7	0	2	5	2	17	19
Difference	2	150	1	2	3	1	2

*Gas production: Harrison, 2,600,000; Panola, 30,246,000; total, 32,846,000.

WELLS COMPLETED
HARRISON COUNTY

J. Lipscomb Survey—Furrh, Nick Barbare 16 ..... gas
Furrh, Nick Barbare 17 ..... gas
Furrh, C. E. Lyons and others 1-A.. gas

Gas production 2,600,000

MARION COUNTY

N. G. Noll Survey—Rives, Pettit Oil Co. 3 150

PANOLA COUNTY

J. Womack Survey—Agurs, Calatex Oil & Gas Co. 4 ..... gas
James Matthews Survey—Gulley, Eureka Natural Gas Co. 1-B ..... gas
B. C. Jordan Survey—Ella Baker, Magnolia Pet. Co. 3 ..... jkd
E. F. Mitcheson Survey—Tiller, Nemours Corp. 4 ..... gas
Joseph Story Survey—Tiller, D. Thomason 3 ..... gas

Gas production 30,246,000

NORTH LOUISIANA

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	*Rigs	Dlg.	Ttl.
Bienville	0	0	0	0	0	1	1
Bosier	3	0	0	3	2	8	10
Caddo	31	2,154	16	1	10	24	34
Catahoula	0	0	0	0	0	1	1
Claiborne	2	0	2	0	0	4	4
De Soto	2	0	2	0	1	5	6
Franklin	0	0	0	0	0	1	1
Jackson	0	0	0	0	0	1	1
La Salle	4	65	0	1	1	6	7
Lincoln	1	0	1	0	0	0	0
Morehouse	3	0	1	2	4	6	10
Natchitoches	0	0	0	0	1	2	3
Ouachita	11	0	1	10	8	14	22
Rapides	0	0	0	0	1	0	1
Red River	1	0	0	1	3	4	7
Richland	4	0	2	2	11	17	28
Sabine	1	2,000	0	0	2	6	8
Union	7	0	3	4	0	2	2
Webster	5	244	0	3	4	10	14
West Carroll	0	0	0	0	0	1	1
Winn	2	90	0	0	1	1	2
Total Aug.	77	4,553	28	27	49	114	163
Total July	56	2,073	15	26	56	122	178
Difference	21	2,480	13	1	7	8	15

*Gas production: Bossier, 3,313,400; Caddo, 2,000,000; La Salle, 300,000; Morehouse, 5,031,000; Ouachita, 31,474,000; Richland, 57,865,000; Union, 27,194,000; Webster, 66,462,000; total, 193,639,400.

WELLS COMPLETED
BOSSIER PARISH

13-17-12 McDade, Palmer Corp. 2 .... gas
23-17-12 Roos, Palmer Corp. 1 ..... gas
11-17-12 Thigpen & Herold, Triangle Drlg. Co. 1 ..... gas
Gas production 3,313,400

CADDO PARISH

13-21-15 Dillon, Dixie Oil Co. 100 35
13-21-15 Dillon, Dixie Oil Co. 101 167
21-21-15 Hobbs, Dixie Oil Co. 5 ..... dry
20-19-14 Oden, D. C. R. Oil Co. 1 20
17-19-14 Hunter, Gold & Sklar 2 .... dry
18-19-14 Oden, Gulf Ref. Co. 5 ..... dry
17-19-14 Hunter, Gulf Ref. Co. 1 ..... dry

17-19-14 Hunter, Gulf Ref. Co. 2 40
34-21-16 Levee Board, Gulf Ref. Co. 18-A 55
34-21-16 Levee Board, Gulf Ref. Co. 17-A 75
19-19-14 Oden, Haynes Bros. 1 ..... dry
32-23-16 Fortner, Humble O. & R. Co. & R. W. Norton 1 ..... dry
21-19-14 Oden, Lide and others 1 .... dry
24-21-15 Dillon, Magnolia Pet. Co. 18. dry
6-20-15 Doan-Thigpen, Magnolia Pet. Co. 18 ..... dry
22-20-15 Dillon, C. B. Moore 5 ..... dry
17-19-14 Hunter, Ohio Oil Co. 2 10
17-19-14 Hunter, Ohio Oil Co. 3 ..... dry
17-19-14 Hunter, Ohio Oil Co. 5 ..... dry
8-19-14 Hunter, Palmer Corp. 2 30
9-19-14 Hunter, Ray-Dawes Drlg. Co. 2 1500
32-21-15 Cheshire, Shreveport Oil Corp. 1 5
33-20-14 Dickson, Simplex Oil Co. 1 .. dry
17-19-14 Hunter, Standard Oil Co. 3.. dry
17-19-14 Hunter, Standard Oil Co. 6.. 45
17-19-14 Hunter, Standard Oil Co. 7.. dry
18-19-14 Oden, Standard Oil Co. 3 ... 57
27-21-16 Levee Board, The Texas Company 69 55
27-21-16 Levee Board, The Texas Company 70 60
33-22-15 Ivins, L. A. Warren 1 ..... dry
35-16-12 Knight, Woodley Pet. Co. 4-A gas

Wells completed 31
Production 2154
Gas 1
Gas production 2,000,000
Dry 16

CLAIBORNE PARISH

26-20-7 R. B. Baker, El Dorado Chief Oil Co. 1 ..... dry
22-23-6 Christian, Southern Crude O. P. Co. 1 ..... dry

DE SOTO PARISH

22-14-12 State, Benedum & Trees Oil Co. 2 ..... dry
32-12-11 Nabors, Lide & Ford 1 ..... dry

LA SALLE PARISH

26-10-1e Mo. Pac. R.R., Air Lift Oil Co. 2 30
11- 9-1e Zenoria Lumber Co., Montague Oil Co. 7 ..... gas
16- 7-2e L. & A., Tunica Pet. Co. 48.. 20
13-10-1e King, G. W. Zoder 3 15

Production 65
Gas production 300,000

LINCOLN PARISH

1-20-3 Voss, V. E. Shaw 1 ..... dry

MOREHOUSE PARISH

16-20-4 White, Consolidated Pet. Co. 2 (crater) ..... abd
18-20-5 Allison, S. D. Hunter 9 ..... gas
4-22-4 Tensas, Natural Gas Prod. Co. 15 ..... gas

Gas production 5,031,000

OUACHITA PARISH

10-18-4 Kate Cole, Ark.-La. Pipe Line Co. 1 ..... gas
21-19-4 McEnery, Ark.-La. Pipe Line Co. 2 ..... gas
11-18-3 H. M. McGuire, Austin & Jordan 1 ..... gas
18-19-4 Frierson, Bahan & Bahan 1.. gas
19-19-4 McEnery, J. B. Bond ..... gas
27-19-4 Stubbs, B. J. Dickinson ... gas
17-17-3 Dixie Land Co., Haynes Oil Co. (loc.) ..... abd
18-19-4 Stubbs, Imperial Oil & Gas Products Co. 8 ..... gas
7-18-5 S. Wallace, Mack & Pipes 1.. gas
8-18-4 W. Va. Timber Co., W. Va. Oil & Gas Co. 8 ..... gas
18-18-5 Miller, H. L. Woods 1 ..... gas

Wells completed 11
Dry 1
Gas 10
Gas production 31,474,000

RED RIVER PARISH

30-12-10 Chaffraix, Eylers Oil Co. 1 .. gas

Gas production 8,460,770

RICHLAND PARISH

25-16-6 Beck, International Gas Prod. Co. 1 ..... gas
34-16-5 C. M. Noble, Magnolia Pet. Co. 3 ..... dry
20-17-6 Boykin, Northern Louisiana Gas Co. 2 (relief well) ... dry
22-17-6 Jones, Palmer Corp. 1-A .... gas

Gas production 57,865,000

SABINE PARISH

33-12-10 Williams, Bridges-Clark Oil Co. 1 2000

UNION PARISH

17-20-4 Peake, Bahan & Bahan 1 ... gas
19-20-3 School Board, Bahan & Bahan 1 ..... gas
21-22-1e Tugwell, J. E. Cammatte 2 .. dry
17-20-4 Stripling, Harrel & Jones 1.. gas
18-23-1e U. S., H. C. McDonald 2 .... dry
11-21-3 Hale, Natural Gas Prod. Co. 3 ..... gas
6-23-1e Security Trust, Sunby and others 1 ..... dry

Wells completed 7
Dry 3
Gas production 27,194,000

WEBSTER PARISH

4-22-9 Adkins, Magnolia Pet. Co. 1. 65
2-22-11 Sally Coyle, Magnolia Pet. Co. 1 179
24-21-10 Bodcaw, Ohio Oil Co. 43 .... gas
28-21-10 Bodcaw, Ohio Oil 44 ..... gas
28-21-10 Bodcaw, Standard Oil Co. 22-B ..... gas

Wells completed 5
Production 244
Gas 3
Gas production 66,462,000

WINN PARISH

23-10-1e Harper, Gardner, Harter & Brown 13 30
23-10-1e Harper, Gardner, Harter & Brown 14 60

ARKANSAS

Summary of Field Operations

	Comp.	Prod.	Dry	Gas*	Rigs	Dlg.	Ttl.
Ashley	0	0	0	0	0	1	1
Calhoun	1	0	1	0	0	1	1
Clark	0	0	0	0	0	1	1
Columbia	1	0	1	0	1	2	3
Faulkner	0	0	0	0	0	1	1
Grant	0	0	0	0	0	1	1
Johnson	0	0	0	0	0	2	2
Lincoln	0	0	0	0	0	1	1
Little River	0	0	0	0	0	1	2	3
Logan	0	0	0	0	0	1	1
Madison	1	0	0	0	1	0	1	1
Miller	0	0	0	0	1	0	1
Nevada	1	0	1	0	0	1	1
Ouachita	4	332	1	0	2	17	19
Pope	0	0	0	0	1	0	1
Pulaski	0	0	0	0	0	1	1
Union	6	30	3	1	8	15	23
Van Buren	0	0	0	0	0	1	1
Washington	0	0	0	0	0	3	3
White	0	0	0	0	0	1	1
Total Aug.	14	362	7	2	14	53	67
Total July	8	1,290	5	1	11	44	55
Difference	6	928	2	1	3	9	12

*Gas production: Madison, 446,000; Union, 24,256,000; total, 24,702,000.

WELLS COMPLETED
COLUMBIA COUNTY

18-18-22 Spencer, T. R. Brown & Humble O. & R. Co. 1 ..... dry
CALHOUN COUNTY
31-14-12 Stout Lumber Co., Ohio Oil Co. 1 ..... dry
MADISON COUNTY
6-16-27 Banks & Teague, Independent O. & G. Co. 1 ..... gas

Gas production 446,000

NEVADA COUNTY

12-14-21 Groves, Wright Oil Co. 4 ... dry
OUACHITA COUNTY
34-15-15 Snyder, Marine Oil Co. 1-A .. 50
11-12-16 Eagle Mills, Phillips Pet. Co. 1 ..... dry
34-15-15 Woods, Skelly Oil Co. 1 177
34-15-15 Powell, Standard Oil Co. 7.. 105

Production 332

UNION COUNTY

2-16-16 Purifoy, E. L. Chapman 1 15
22-17-17 Murphy Land Co., E. L. Foster 1 ..... dry
3-16-16 Goodwin & Stone, Lovett and others 1 ..... dry
15-17-14 Gregory, Magnolia Pet. Co. 1 gas
18-17-13 Oliver, Root Refineries, Inc., 1 dry
31-17-15 Goodwin, Weisinger and others 7 15

Wells completed 6
Production 30
Dry 3
Gas 1
Gas production 24,256,000

GULF COAST FIELDS

Summary of Field Operations
Texas

Field—	Comp.	Prod.	Abd.	Gas	Rigs	Dlg.	Ttl.
Barbers Hill	11	18,335	1	0	3	19	22
Batson	6	35	3	0	0	2	2
Big Creek	3	3,820	1	0	0	2	2
Blue Ridge	4	2,050	1	0	0	4	4
Boling	2	0	2	0	0	2	2
Clay Creek	3	0	2	1	0	2	2
Damon Mound	1	0	1	0	0	2	2
De Walt	4	2,900	0	0	2	7	9
Goose Creek	0	0	0	0	0	5	5
High Island	1	0	1	0	0	4	4
Hull	7	2,115	1	0	0	9	9
Humble	9	10,030	1	0	3	14	17
Liberty	9	1,101	6	0	0	4	4
Nash	0	0	0	0	0	1	1
North Dayton	2	0	1	1	0	0	0
Orange	4	410	0	0	0	3	3
Orchard	0	0	0	0	0	1	1
Pierce Junc.	9	4,625	1	0	1	9	10
Raccoon Bend	14	3,165	3	0	9	17	26
Refugio	10	1,970	3	2	8	26	34
Saratoga	3	79	1	0	0	0	0
Sour Lake	3	105	1	0	0	2	2
Spindletop	16	4,139	4	0	0	13	13
W. Columbia	0	0	0	0	0	6	6
Miscellaneous	30	903	22	1	6	20	26
Total Aug.	151	55,782	56	5	32	175	207
Total July	112	37,794	39	5	15	198	213
Difference	39	17,988	17	0	17	23	6

South Louisiana

Anse La Butte	1	1,000	0	0	0	1	1
Bay. Bouillon	0	0	0	0	0	2	2
Edgerly	1	1,500	0	0	0	2	2
Jennings	0	0	0	0	0	4	4
Hackberry	5	830	2	0	1	6	7
Lockport	1	385	0	0	0	5	5
Sorrento	0	0	0	0	0	1	1
Starks	2	0	2	0	0	0	0
Sulphur	2	4,400	0	0	0	4	4
Sweet Lake	0	0	0	0	0	1	1
Vinton	4	410	2	0	0	4	4
Miscellaneous	9	500	8	0	8	20	28
Total Aug.	25	9,025	14	0	9	50	59
Total July	16	3,642	7	0	8	45	53
Difference	9	5,383	7	0	1	5	6

Gulf Coast

Total Aug.	176	64,807	70	5	41	225	266
Total July	128	41,436	46	5	23	243	266
Difference	48	23,371	24	0	18	18	0

TEXAS
WELLS COMPLETED
BARBERS HILL—CHAMBERS COUNTY

Smith, Mills Bennet. Prod. Co. 3 ..... abd
Ilfrey, Humphreys Corp. 1 2000
Barber, Humphreys Corp. 1 1900
Kirby, Humphreys Corp. 1-H 1450
Kirby, Humphreys Corp. 2-H 1630
Kirby, Humphreys Corp. 3-H 3025
Farbutton, Humphreys Corp. 1 1700
Ilfrey, Moody Corp. 1 2500
McLean, Rexal Oil Co. 2 1475
Smith, Rexal Oil Co. 1 100
Chambers, Yount Lee Oil Co. 7 2585

Wells completed 11
Production 18,335
Abandoned 1

BATSON—HARDIN COUNTY

Paraffine, Acorn Oil Co. 71 15
Paraffine, Ada Belle Oil Co. 128 ..... abd
Hodges, Capitol Oil Co. 11 ..... abd
Wing, Gulf Prod. Co. 172 15
Paraffine, Paraffine Oil Co. 80 5
Paraffine, Paraffine Oil Co. 46 ..... abd

Wells completed 6
Production 35
Abandoned 3

BIG CREEK—FORT BEND COUNTY

Ahlers, Benedum & Trees 2 320
Davis, Gulf Prod. Co. 30 ..... abd
Davis, Gulf Prod. Co. 54 3500

Wells completed 3
Production 3820
Abandoned 1

BLUE RIDGE—FORT BEND COUNTY

West-Schenck, J. S. Abercrombie 9 .... abd
Invincible, Gulf Prod. Co. 7 500
Robinson, Navarro Oil Co. 1-C 1500
Davison, South Texas Pet. Co. 2 50

Wells completed 4
Production 2059
Abandoned 1

BOLING—WHARTON AND FORT BEND

E. C. Farmer, Sun Oil Co. 8 ..... abd
Hill, Union Sulphur Co. 5 ..... abd

CLAY CREEK—WASHINGTON COUNTY

Cockrell, Sun Oil Co. 1 ..... abd
Hunt, Sun Oil Co. 2 ..... gas
Hun., Sun Oil Co. 1 ..... abd

Wells completed 3
Gas 1
Gas production 2,000,000
Abandoned 2

DAMON MOUND—BRAZORIA COUNTY

Smith, Cullen & West 1 ..... abd

DEWALT—FORT BEND COUNTY

Camp, Humble O. & R. Co. 5 400
Hamner fee, Humble O. & R. Co. 5 1200
Hamner fee, Humble O. & R. Co. 7 700
Dew, Humble O. & R. Co. 2 300

Wells completed 4
Production 2900

HIGH ISLAND—GALVESTON COUNTY

Cade, Marrs McLean 11 ..... abd

HULL—LIBERTY COUNTY

Phoenix, Gulf Prod. Co. 39 20
Phoenix, Gulf Prod. Co. 48 70
Phoenix, Gulf Prod. Co. 49 180
Dolbear, Republic Prod. Co. 68 1500
Dolbear, Republic Prod. Co. 114 240
Carr, Sun Oil Co. 11 ..... abd
Hannah, The Texas Co. 1 105

Wells completed 7
Production 2115
Abandoned 1

HUMBLE—HARRIS COUNTY

Williams, Humble O. & R. Co. 2 1700
Pickens, Rolyat Prod. Co. 28 30
Morris, South Texas Pet. Co. 7 600
Morris, South Texas Pet. Co. 8 4500
Morris, South Texas Pet. Co. 9 1800
Landslide, The Texas Co. 263 ..... gas
Stevenson, The Texas Co. 40 300
C. O. & G., The Texas Co. 29 900
Koehler, The Texas Co. 35 200

Wells completed 1
Production 10,030
Gas 1

LIBERTY—LIBERTY COUNTY

Groggan, Empire G. & F. Co. 3 750
Monroe, Liberty Oil & Sulphur Co. 2 .. abd
Gulf Land, Navarro Oil Co. 2 ..... abd
Turner, Painter Oil Co. 2 ..... abd
Mitchell, Sun Oil Co. 45 51
Mitchell, Sun Oil Co. 46 300
Mitchell, Sun Oil Co. 47 ..... abd
Deuseen, Talley & O'Brien 1 ..... abd
Pickett, The Texas Co. 3 ..... abd

Wells completed 9
Production 1101
Abandoned 6

NORTH DAYTON—LIBERTY COUNTY

Quintette, Harrison Oil Co. 4 ..... gas
Kovelcik, Sun Oil Co. 2 ..... abd

Wells completed 2
Gas 1
Abandoned 1

PIERCE JUNCTION—HARRIS COUNTY

Whitehead, Anderson & Plummer 5 200
Taylor, Gulf Prod. Co. 29 2000
Settegast, Moody Corp. 5-B 1100
Calvert, Moody Corp. 2 ..... abd
Cain, Navarro Oil Co. 4-B 500
Dooley, Navarro Oil Co. and Humble O. & R. Co. 4 ..... abd
Dooley, Navarro and Texas Explin. 16.. 500
Settegast, Rio Bravo Oil Co. 8-A 150
Herman estate, Saxet Gas Co. 3 175

Wells completed 9
Production 4625
Abandoned 2

RACCOON BEND—AUSTIN COUNTY

Dietrichs, Humble O. & R. Co. and Valley Oil Corp. 4 450
Woodley, Humble and Valley 2 400
Reece, Humble and Valley 3 50
Austin College, Humble and Valley 4 75
Walton, Humble and Valley 1-B 50
Gotosky, Humble and Valley 4 372
Buchanan, Humble and Valley 2 100
Stravoski, Humble and Valley 2 ..... abd
Thompson, Humble and Valley 4 128
Mueller, Humble & Valley 2 400
Keacheker, Humble and Valley 1 ..... abd
Krauallski, Humble and Valley 1 ..... abd
Grawunder, Humble and Valley 2-H 640
Walton, Humble and Valley 3 500

Wells completed 14
Production 3165
Abandoned 3

REFUGIO—REFUGIO COUNTY

Terrell, George Ball 1 ..... abd
Clint Heard, Benedum & Trees 4 ..... gas
St. Johns, Blanco Creek Oil Co. 1 ..... abd
Lambert, Houston Gulf Gas Co. 9 ..... gas
Rooke, Houston Oil Co. 12 200
Shay, Mission Drilling Co. 1 200
Ryals, Oigufer Oil Co. 2 720
Fox, W. L. Pearson, trustee, 1 550
Claude Heard, Saxet Oil Co. 5 ..... abd
Rea, Sun Oil Co. 2 300

Wells completed 10
Production 1970
Abandoned 3
Gas 2
Gas production 80,000,000

ORANGE—ORANGE COUNTY

McLean, Brownie-Babbett Oil Co. 2 25
McLean, Brownie-Babbett Oil Co. 6 10
Carbello, Rex Pet. Co. 7 75
State, Tillery Oil Co. 2 200

Wells completed 4
Production 410

SARATOGA—HARDIN COUNTY

Patton, Gulf Coastal Oil Co. 1 ..... abd
Cotton, Rio Bravo Oil Co. 79 90
Cotton, Rio Bravo Oil Co. 79-A 59

Wells completed 3
Production 79
Abandoned 1

SOUR LAKE—HARDIN COUNTY

Tarver, Gulf Prod. Co. 51 ..... abd
Bashara, Humble O. & R. Co. 6 80
Hardin County, Lake View Oil Co. 61 .. 25

Wells completed 3
Production 105
Abandoned 1

SPINDLETOP—JEFFERSON COUNTY

Oakwood, Gulf Prod. Co. 6 200
McLean, Sun Oil Co. 11 20
McFaddin, Yount Lee Oil Co. 14 300
McFaddin, Yount Lee Oil Co. 60 174
McFaddin, Yount Lee Oil Co. 69 850
McFaddin, Yount Lee Oil Co. 103 ..... abd
McFaddin, Yount Lee Oil Co. 107 ..... abd
McFaddin, Yount Lee Oil Co. 108 1200
McFaddin, Yount Lee Oil Co. 109 300
McFaddin, Yount Lee Oil Co. 110 ..... abd
Gladys City, Yount Lee Oil Co. 36 ..... abd
Gladys City, Yount Lee Oil Co. 43 100
Gladys City, Yount Lee Oil Co. 70 370
Gladys City, Yount Lee Oil Co. 94 180
Fee, Yount Lee Oil Co. 2 425
McFaddin, Unity Oil Co. 92 20

Wells completed 16
Production 4139
Abandoned 4

MISCELLANEOUS TEXAS
Austin County—

Brenham-Shuerenberg, Butler-Calhoun 3 20
Brenham-Shuerenberg, Butler-Calhoun 4 abd
Brenham-Pomykal, Lee Dekle 1 25
Brenham-Pomykal, Lee Dekel 3 10

Brazoria County—

Stratton Ridge-Brock, Empire G. & F. 3 abd
Fee, Thos. Faust et al 4 ..... abd

Burleson County—

Rogers, Silver Moon Oil Co. 1 ..... abd

Chambers County—

Mayes, Pure Oil Co. 2 200

Colorado County—

Richard, Shell Pet. Corp. 1 ..... abd
Serna, The Texas Co. 1 ..... abd

Fort Bend County—

Long Point-Wolf, Gulf Prod. Co. 16 .... abd
Miller, Humble O. & R. Co. 1 ..... abd

Harris County—

MyKawa-Irvin, Humble O. & R. Co. 2.. gas
Brown, Paxton et al 1 ..... abd

Jasper County—

Rockland-Boykin, Mark Kleedon 6 .... abd

Jefferson County—

Fannette-Bordages, Gulf Prod. Co. 7 .. 100
Young, Nederland Oil & Dev. Co. 1 .... abd

Liberty County—

Moss Bluff-Sterking, Humble O. & R. 5 abd
Myslivec, Republic Prod. Co. 1 ..... abd
Moores Bluff, Harvey Smith et al 1 500
Esperson, Union Explin. Co. 3 48

Matagorda County—

Shepherds Mott-Hawkins, Crossland et al 1 ..... abd

Montgomery County—

Chase, H. R. Cullen et al 1 ..... abd

Orange County—

Reed, Veteran Oil Co. 1 ..... abd

Tyler County—

Rockland-Caswell, Rockland Oil Co. 1 .... abd

Washington County—

Rubenstein, Anderson et al 1 ..... abd
Carter, A. W. Kellett 1 ..... abd
McDade, South Texas Pet. Co. 1 ..... abd
Giddings, Thomas et al 1 ..... abd
Fee, H. B. Wood 1 ..... abd

Wells completed 30
Production 903
Abandoned 22
Gas 1
Gas production 50,000,000

SOUTH LOUISIANA
WELLS COMPLETED
ANSE LA BUTTE—ST. MARTIN PARISH

Louisiana Pet. Co., Yount Lee Oil Co. 5 1900

EDGERLY—CALCASIEU PARISH

Hunter, Rex Pet. Co. 16 1500

HACKBERRY—CAMERON PARISH

Lemke, Calcasieu Oil Co. 2 ..... abd
Duhon, Cameron Oil Co. 5 30
Sanner, Moon Oil Co. 4 80
Ellender, Sunshine Oil Co. 1 700
Dupree, Sunshine Oil Co. 1 ..... abd

Wells completed 5
Production 830
Abandoned 2

LOCKPORT—CALCASIEU PARISH
Miller, Vacuum Oil Co. and Gulf Ref. 9 385
STARKS—CALCASIEU PARISH
Industrial, Gulf Ref. Co. 13 ..... abd
Lutcher-Moor, Gulf Ref. Co. 15 ..... abd

Wells completed 2
Abandoned 2
SULPHUR—CALCASIEU PARISH
Fee, Union Sulphur Co. 748 1900
Fee, Union Sulphur Co. 746 2500

Wells completed 2
Production 4400
VINTON—CALCASIEU PARISH
Gray, Marrs McLean 4 ..... abd
Shaw, Salt Dome Oil Co. 2 10
Gray, Vinton Pet. Co. 14 ..... abd
Rescue, Vinton Pet. Co. 9 499

Wells completed 4
Production 410
Abandoned 2
MISCELLANEOUS LOUISIANA
Ascension Parish—
Darrow-Reardon, Big Dome Drlg. & Dev. Co. 1 ..... abd
Darrow-Desiere, Pickard & Geisman 1 .. abd
Iberia Parish—
Loreauville-State, Gulf Ref. Co. 10-Z ... abd
LaFourche Parish—
Thibodaux-Stark, Gulf Ref. Co. 18 .... abd
St. Landry Parish—
Port Barre-Botney Bay, The Texas Co. 2 500
St. Mary Parish—
Belle Isle-Belle Isle, Freeport Sulphur 1 abd
Belle Isle-Belle Isle, Freeport Sulphur 2 abd
Terrebonne Parish—
Houma-Waterproof, Southern Gas Co. 1 abd
Caillou Island-Timbalier Bay, The Texas Co. 1-A ..... abd

Wells completed 9
Production 500
Abandoned 8

MISSISSIPPI

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	*Rigs	Dlg.	Ttl.
Alcorn	0	0	0	0	0	1	1
Chickasaw ..	0	0	0	0	0	1	1
Claiborne	1	0	1	0	0	0	0
Harrison	0	0	0	0	1	0	1
Hinds	0	0	0	0	1	3	4
Humphreys .	0	0	0	0	0	1	1
Lauderdale ..	0	0	0	0	1	2	3
Lincoln	0	0	0	0	0	1	1
Monroe	1	0	0	1	0	4	4
Warren	0	0	0	0	0	1	1
Yalobusha ...	0	0	0	0	0	1	1
Total Aug. .	2	0	1	1	3	15	18
Total July .	2	0	2	0	5	18	23
Difference .	0	0	1	1	2	3	5

*Gas production: Monroe, 600,000 cubic feet.

WELLS COMPLETED
CLAIBORNE COUNTY
36-10-4 Shannon, Ben W. White and others 1 ..... dry
MONROE COUNTY
7-17-13 Carter, Amory Natural Gas Co. 2 ..... gas

Gas production 600,000

KENTUCKY-TENNESSEE

KENTUCKY
Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Dlg.	Ttl.
Warren	5	3	2	0	0	4	4
Allen	0	0	0	0	0	12	12
Barren	0	0	0	0	0	3	3
Ohio	70	3,480	8	2	1	93	94
Daviess	23	525	11	0	4	46	50
Hancock	0	0	0	0	1	5	6
McLean	1	0	1	0	0	6	6
Henderson ..	5	265	0	0	0	7	7
Webster .. .	0	0	0	0	0	3	3
Muhlenburg .	3	500	1	0	0	6	6
Hopkins	0	0	0	0	0	7	7
Butler	0	0	0	0	1	2	3
Breckenridge.	0	0	0	0	1	1	2
Christian	0	0	0	0	3	3	6
Caldwell	2	0	0	2	0	0	0
Cumberland ..	0	0	0	0	0	2	2
LaRue	0	0	0	0	0	1	1
Wayne	2	5	0	0	0	7	7
Powell	0	0	0	0	0	1	1
Estill	1	1	0	0	0	3	3
Wolfe	0	0	0	0	0	1	1
Lee-Owsley ..	5	13	0	0	0	1	1
Lawrence-Johnson ...	1	4	0	0	0	0	0
Johnson-Magoffin ..	4	39	0	0	0	1	1	2
Floyd	0	0	0	0	0	1	1
Clay	0	0	0	0	0	1	1
Jackson	0	0	0	0	1	0	1
Perry	1	0	0	1	0	0	0
Knox	0	0	0	0	0	1	1
Total Aug..	123	4,840	23	5	14	217	231
Total July.	162	5,503	53	10	17	197	214
Difference .	39	663	30	5	3	20	17

WELLS COMPLETED
WARREN COUNTY
Bowling Green—J. R. Jenkins, Johnson & Julian 16 ..... dry
R. E. Walters, Lucky Strike Oil 3. 3
H. W. Teague, H. W. Teague 1 4
B. D. Davis, Melvin Tabor 2 ..... dry
A. C. Bettersworth 50-A, Allen Oil & Gas 4 1

Wells completed 5
Production 8
Dry 2
OHIO COUNTY
Hartford—Friendship Church, Bellamy & Co. 1 ..... dry
Nannie Rogers, Wood Oil 4 10
J. C. Ralph, Wood Oil 7 ..... dry
J. E. Mitchell, Wood Oil 7 6
J. E. Mitchell, Wood Oil 8 1
Nannie Rogers, Wood Oil 5 5
T. P. Royal, National Deposit Bank 2 25
J. A. Kirk, Ohio Oil 8 70
J. A. Kirk, Ohio Oil 9 60
J. A. Kirk, Ohio Oil 10 100
J. A. Kirk, Ohio Oil 11 100
J. A. Kirk, Ohio Oil 12 200
J. A. Kirk, Ohio Oil 13 180
R. A. Duke, Wood Oil 11 85
J. T. Helm, Ohio Oil 1 2
W. H. Renfron, Ohio Oil 1 ..... dry
Van Whitley, Jas. C. Ellis & Co. 1... 10
Otis Greer, Jas. C. Ellis & Co. 4 ... 30
Otis Greer, Jas. C. Ellis & Co. 5 ... 35
Otis Greer, Jas. C. Ellis &Co. 6 ... 30
Otis Greer, Jas. C. Ellis & Co. 7 ... 80
A. B. Ralph, Jas. C.Ellis & Co. 1 ... 10
A. B. Ralph, Jas. C. Ellis & Co. 2 ... 8
Bob Keith, Jas. C. Ellis & Co. 7 20
Bob Keith, Jas. C. Ellis & Co. 8 ... 30
J. P. Morgan, Jas. C. Ellis & Co. 1... 10
Van Whitley, Jas C. Ellis & Co. 2 ... 10
Ellis Barlett, Jas. C .Ellis & Co. 1. dry
Wilber Cardon, Sidney Petroleum 1.. gas
V. Westerfall, D. T. Bolling 3 40
J. B. Dodson, Tracey Supply Co. 3.. 30
Sallie Hoover, Rex-Pyramid Oil 1 ... 100
G. W. Morgan, Rex-Pyramid Oil 3 ... 300
J. L. Stinnett, Rex-Pyramid Oil 10.. dry
Cora Wells, Mecca Oil 26 50
J. L. & J. H. Ralph, C. Claypool & Co. 13 30
Tom Westerfield, Leeper Oil 1 20
Ollie Evans, Leeper Oil 6 40
Ira Howard, Creek Drilling 2 ..... dry
M. E. Medcalf, Chester Oil 3 50
Thomas Hamilton, Chester Oil 2 5
M. E. Medcalf, Chester Oil 4 60
Payton Royal, H. L. Ogle & Co. 8 ... 50
Payton Royal, H. L. Ogle & Co. 10 .. 50
Payton Royal, H. L. Ogle & Co. 11 .. 100
Royal heirs 60-ac., H. L. Ogle & Co. 2 25
Royal heirs 60-ac., H. L. Ogle & Co. 1 40
J. B. Mitchell, Richards, Dehart & Fisher 1 5
Fannie Lake, Creek Drilling 15 15
C. V. Wedding, Cumberland Pet. 1 ... 20
Nancy Farmer, Dr. Sirmans Co. 16.. 100
Nancy Farmer, Dr. Sirmans Co. 17 .. 30
Guenther-Gant, Jos. B. Mayer 15 ... 3
Jeff Wade, D. J. White & Co. 3 15
A. P. Kelley, S. R. Nigh & Co. 10 ... 20
H. C. Greer, S. H. Russell & Co. 6... 30
P. R. Kelley, Russell & Rudolph 2 .. dry
H. C. Greer, S. H. Russell & Co. 7.. 20
S. F. Whitley, Meredith & Co. 3 ... 8
J. J. Miller, Pampas Oil & Gas 1 .... gas
E. E. Fuqua, John Breen & Co. 2 ... 14
W. B. Kelley, Ohio Oil 8 48
L. Trodgen, Hupp & Duff 16 200
L. Trodgen, Hupp & Duff 17 200
L. Trodgen, Hupp & Duff 18 150
L. Trodgen, C. E. Daugherty & Co. 8 110
L. Trodgen, C. E. Daugherty & Co. 9 100
L. Trodgen, C. E. Daugherty & Co. 10. 125
L. Trodgen, C. E. Daugherty & Co. 11. 160
G. Harrison, C. E. Daugherty & Co. 1 dry

Wells completed 70
Production 3,480
Dry 8
Gas 2
DAVIESS COUNTY
Owensboro—Jas. Irwin, Creek Drilling 1 dry
Tony Hansford, The Petroleum 4 ... 10
Lewis Burns, The Petroleum 1 ..... dry
S. Hinton, Jetsan Oil 7 10
St. Joseph Academy, Red Bank Oil & Gas 1 ..... dry
Joe Brannon, Wittmer Oil & Gas 2 .. dry
First Nat. Bank, Penn-Indiana Oil 6 dry
First Nat. Bank, Penn-Indiana Oil 7 160
Weir, Robbins, Brewer & Thrasher 1. dry
Isabell Salmon, Cumberland Pet. 4.. 100
S. H. Easton 75-ac., Cumberland Pet. 6 20
Morgan G. Ruby, Eastern Gulf Oil 9 dry
Weatherford, Roxana Pet. 1 75
Lindsay Purcell, Goldsburg, Young & Co. 7 35
Lindsay Purcell, Goldburg, Young & Co. 8 35
Jennie Wilson, Dahlgren, McMahan & Co. 1 ..... dry
Widow Salmon, Huff & Calderwood 8 50
M. D. Meiser, Young, Duncan & Co. 1 12
Hayden heirs, Cumberland Pet. 3 ... dry
S. Hinton, Jetsan Oil 8 3
W. R. Russell, Petroleum Expl. 1 .... dry
Stinnett heirs, Vickers & Co. 3 ..... dry
G. B. Ruby, Ohio Oil 3 15

Wells completed 23
Production 525
Dry 11
M'LEAN COUNTY
Calhoun—A. C. Atherton, Roy Hogan & Co. 1 ..... dry
HENDERSON COUNTY
Niagara—G. P. Jeter, H. Z. Clark 1 100
J. C. Duncan, H. Z. Clark 1 30
J. C. Wallace, Unknown 1 25
Dunn, Niagara Oil & Gas 1 75
Walker Thornbury, Turner & Smith 1 35

Wells completed 5
Production 265
ESTILL COUNTY
District 7—John & Patsy Marcum, Gate City Oil 8 1
CALDWELL COUNTY
Princeton—Jenkins, Caldwell Oil & Gas 1 ..... gas
Thos. H. Son, S. B. Wilson & Son 1 ..... gas

Wells completed 2
Gas 2
WAYNE COUNTY
District 5—Coffey-Oatts, Porter, Abbott & Co. 11 2
District 13—Coyle heirs, M. D. Shearer 6 3

Wells completed 2
Production 5
LEE-OWSLEY COUNTIES
District 17—Calmes-Pary, Superior Oil Corp. 3 3
Elijah Sparks, Superior Oil Corp. 1 ... 3
Elijah Sparks, Superior Oil Corp. 2 1
Darch & Short heirs, First Nat. Bank of Jackson 3 5
District 18—W. C. Burgin, J. D. Welch & Co. 4 1

Wells completed 5
Production 13
LAWRENCE-JOHNSON COUNTIES
District 32—Sena Skaggs, Swiss Oil Corp. 1 4
JOHNSON-MAGOFFIN COUNTIES
District 27—Nancy Vanderpool, Marbald Dev. 5 10
Nancy Vanderpool, Marbald Dev. 6 .. 15
District 29—D. M. Wheeler, Pittsburgh Trust 7 4
District 31—Riggs Bailey, Hupp & Duff 4 10

Wells completed 4
Production 39
PERRY COUNTY
Near Hazard—Turner, J. F. Justice & Co. 1 ..... gas
MUHLENBURG COUNTY
Greenville—Bradshere, Jas. C. Ellis & Co. 1 350
Schaeffer, Wood Oil 1 ..... dry
Rice, Jac. C. Ellis & Co. 1 150

Wells completed 3
Production 500
Dry 1
WEST TENNESSEE
Summary of Field Operations

	Rigs	Dlg.	Ttl.
Decatur	0	2	2
Fayette	0	1	1
Total	0	3	3

ALABAMA

Summary of Field Operations

	Rigs	Dlg.	Ttl.
Choctaw	0	1	1
Lamar	0	1	1
Sumter	0	1	1
Washington	0	2	2
Total	0	5	5

ROCKY MOUNTAIN AREA

MONTANA
Summary of Field Operations

District—	Comp.	Prod.	Dry	Gas	Rgs.	Drg.	Ttl.
Cat Creek	0	0	0	0	0	2	2
Kevin Sunbu't	42	515	9	11	13	31	44
Pondera	7	521	1	0	2	3	5
Miscellaneous.	11	42	3	5	5	65	70
Total Aug. .	60	1,078	13	16	20	101	121
Total July .	30	453	7	3	20	114	134
Difference .	30	625	6	8	0	13	13

NEW MEXICO
Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Dlg.	Ttl.
Chaves	0	0	0	0	1	3	4
De Baca	0	0	0	0	0	4	4
Eddy	3	0	3	0	2	13	15
Guadalupe ..	1	0	1	0	0	0	0
Lea	5	780	2	2	6	29	35
McKinley ...	0	0	0	0	4	8	12
Rio Arriba ..	0	0	0	0	1	4	5
San Juan	0	0	0	0	4	14	18
Miscellaneous.	0	0	0	0	3	10	13
Total Aug..	9	780	6	2	21	85	106
Total July..	11	1,401	3	3	31	83	114
Difference .	2	621	3	1	10	2	8

UTAH
Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Dlg.	Ttl
Total Aug....	0	0	0	0	2	31	33
Total July....	1	0	1	0	2	29	31
Difference .	1	0	1	0	0	2	2

COLORADO
Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Dlg.	Ttl.
Fremont	4	180	1	0	1	13	14
Jackson	0	0	0	0	0	6	6
Larimer	0	0	0	0	1	8	9
Moffat	2	72	0	0	6	3	9
Pueblo	0	0	0	0	0	4	4
Rio Blanco ..	0	0	0	0	0	2	2
Routt	0	0	0	0	2	3	5
Yuma	0	0	0	0	0	2	2
Miscellaneous.	0	0	0	0	2	39	41
Total Aug..	6	252	1	0	12	80	92
Total July..	15	25	14	0	11	52	93
Difference .	9	227	13	0	1	2	1

WYOMING
Summary of Field Operations

District or County—	Comp.	Prod.	Dry	Gas	Rigs	Dlg.	Ttl.
Salt Creek ...	3	1,973	0	0	3	7	10
Big Horn	2	90	1	0	0	9	9
Carbon	1	0	1	0	2	14	16
Fremont	0	0	0	0	1	10	11
Hot Springs .	0	0	0	0	0	5	5
Johnson	0	0	0	0	0	4	4
Lincoln	0	0	0	0	2	8	10
Natrona (exc. Salt Creek.	1	125	0	0	0	9	9
Park	4	500	3	0	8	33	41
Sweetwater .	0	0	0	0	4	12	16
Sublet	3	238	1	0	2	21	23
Uinta	0	0	0	0	5	13	18
Weston	1	200	0	0	1	3	4
Miscellaneous.	0	0	0	0	3	11	14
Total Aug..	15	3,126	6	0	31	159	190
Total July..	12	5,711	3	1	28	161	189
Difference .	3	2,585	3	1	3	2	1

NEW MEXICO
WELLS COMPLETED
25-16-30 Etz, Livermore, Parker et al 1 abd
18-16-30 Haggerty, Leonard & Levers 1 dry
28-19-30 Lane, Midwest Ref. Co. 31.... dry
24- 8-24 Rutherford, Hanchett et al 1. abd
28-20-32 Martin, Empire G. & F. Co. 1.. dry
6-22-36 Closson, Empire G. & F. Co. 1. gas
23-25-36 Lindley, Humble O. & R. Co. 1 780
18-12-35 State, Holmes et al 1..... abd
22-24-36 Meyers, Cranfill & Reynolds 1 gas

Wells completed 9
Production 780
Gas production 130,000,000
Dry and abandoned 6
COLORADO
WELLS COMPLETED
33-18-70 Sells, Tobin & Hoffman 1..... dry
21-20-69 Hassler, Mojada Oil & Drlg. 5. 70
1-19-70 McKenzie, Continental Oil 6.... 10
11-19-70 Vezetti, Continental Oil 4..... 190
22-4n-92 Midwest Ref. Co. 24-SD 50
21-4n-92 Lloyd, Texas Prod. Co. 36 22

Wells completed 6
Production 252
Dry and abandoned 1
WYOMING
WELLS COMPLETED
25-40- 79 NW Midwest Oil Co. 18-SD-2. 144
23-40- 79 NW Wyoming Asso. 1773
23-40- 79 SE Wyoming Oil Fields Co. 24-SD-2 56
24-51- 93 Prod. & Refiners 39 ..... dry
23-56- 93 Cross Gas Co. 1 90
14-25- 89 Prod. & Refiners 1..... dry
3-33- 83 Fargo-Western Oil Co. 11 125
5-57- 97 Hill, Prod. & Refiners 1..... abd
7-57- 97 Rand, Prod. & Refiners 1 .... dry
28-51-100 Rue, Charles E. Orchard 5 .. 500
13-51-101 Pulley, Lenco Pet. Co. 1 .... abd
3-26-113 Superior-Wyoming Oil Co. 5.. 100
3-26-113 Woolf Pet. Co. 5 138
12-32-115 Wyss, California Co. 1 ..... dry
14-46- 64 Osage Oil Trust 200

Wells completed 15
Production 3126
Dry and abandoned 4
MONTANA
WELLS COMPLETED
13-34- 1 Moore, Moore Drlg. Co. 2..... gas
19-35- 1 Kal-Kevin, P. M. K. Oils 16... 50
20-35- 1 Zachor, Ogden Kevin Oil Co. 6 15
21-33- 1 Spency, International Royalty Holding 1 ..... gas
30-35- 1 Anderson, C. A. Remington 7... 10
10-34- 1 Murrils, Roxana Oil, Ltd. ..... dry
22-33- 1 Etschen, Sunburst O. & R. Co. gas
29-35- 1 Maughans, Sweeney Oil Co. 7-A 5
29-35- 1 Maughans, Sweeney Oil Co. 8-A 10
29-35- 2 Kal-Kevin, T. P. C. & O. Co. 7 10
29-35- 2 Kal-Kevin, T. P. C. & O. Co. 8 25
22-35- 2 Pewters, T. P. C. & O. Co. 12-A dry
27-34- 1 Jones, Texas Prod. Co. 2 ..... gas
19-35- 1 Kal-Kevin, Arcus Prod. Co. 9. 50
21-35- 3 McGowan, B. A. S. Aronow 3.. dry
31-35- 1 Allen, Big West Oil Co. 30.... 15
27-35- 2 Smoke, California Co. 12 ..... dry
13-34- 2 Morton, A. H. Campbell 5..... 15
13-34- 2 Morton A/C 2, A. H. Campbell. 25
13-34- 2 Morton, A. H. Campbell 49-B. 10
20-35- 1 Zachor, Cosmos Pet. 5 25
35-34- 1 Holl, Dakota Montana 2..... gas
17-34- 1 Peterson, Dakota Montana 3.. dry
28-35- 1 Levnick, Deloraine Oil Synd. 5 10
27-35- 1 Levnick, Huso Bros. 3 10
29-35- 2 Jarrett, "56" Pet. Corp. 2..... 120
29-35- 2 Jarrett, "56" Pet. Corp. 3..... gas
35-34- 1 Griffin, Hannah Porter 1..... gas
36-34- 1 State, Hannah Porter 3..... gas
22-35- 2 Lorensen, L. W. Hill 16..... 15
22-35- 2 Lorensen, L. W. Hill 17..... 15
19-35- 1 Bluhm, Imperial Pet. 3..... 25
34-35- 3 Johnson, Kyle Montana 1..... gas
24-34- 2 Morton, Marine Oil Co. 1..... 20
34-33- 2 Kolberg, Northern Nat. Gas 1. dry
12-34- 2 Steele, Southern Oil Synd. 4... dry
24-35- 2 Morton, Medford Oil Co. 4.... dry
21-33- 1 Spency, Olsen et al 1 ..... gas
28-35- 1 Levnick, Deloraine Oil Co. 5... 5
34-33- 2 Cox, Northern Nat. Gas Co. 2.. dry
29-35- 2 Jarrett, A. E. Crumley 2..... 30
17-33- 2 McDonough, Washti Pet. 1..... gas
16-27- 4 State, Fulton Pet. 9..... 94
9-27- 4 Jones, Fulton Pet. 4..... 15
9-27- 4 Jones, Midwest Ref. Co. 31 SW 110
16-27- 4 State, Midwest Ref. Co. 21-NE. 42
16-27- 4 State, Kevin Corp. 4..... 225
15-27- 4 Kingsbury, Texas Prod. Co. 10. 35
22-27- 4 Sunburst, T. P. C. & O. Co. 1.. dry
5-25- 1 Speer, "56" Pet. Corp. 5..... 12
5-25- 1 Speer, Sterling Oil Co. 1..... 20
5-25- 1 Speer, Sterling Oil Co. 2..... 10
19-23- 6 Walker, California Synd. 1.... dry
31- 8-60 Gas Dev. Co. 41..... gas
22-37- 4 Townsend, Western Nat. Gas 2 gas
16-24- 2 State, Ohio Oil Co. 1..... dry
14- 1-33 Big Horn O. & G. Dev. 5..... gas
36-28- 6 Winther et al 1..... dry
2- 8-59 Cedar Creek O. & G. 1..... gas
14- 5-60 N. D. Miller ..... gas

Completions 60
Production 1078
Dry 13
Gas 16

EASTERN FIELDS

Summary of Wells Completed

Fields—	Comp.	Prod.	Dry	Gas
Allegany	32	89	0	0
Bradford	277	433	0	0
Middle Field	10	27	0	0
Venango-Clarion	63	95	5	8
Butler-Armstrong	20	31	7	0
S. W. Pennsylvania	17	48	2	8
West Virginia	74	418	13	11
S. E. Ohio	111	1,059	28	17
Total Aug.	604	2,200	55	44
Total July	564	1,898	38	75
Difference	40	302	17	31

Rigs and Wells Drilling

Fields—	Rigs	Dlg.	Ttl.
Allegany	5	29	34
Bradford	29	124	153
Middle Field	0	6	6
Venango-Clarion	4	26	30
Butler-Armstrong	7	24	31
S. W. Pennsylvania	7	19	26
West Virginia	37	109	146
S. E. Ohio	33	118	151
Total Aug. 31	122	455	577
Total July 31	139	469	608
Difference	17	14	31

WELLS COMPLETED

ALLEGANY FIELD

Forest Oil Corp., 7 water wells, press
Forest Oil Corp., 5 oil wells 5
Hastings, Currie & Burns ..... water
Fee, Scott et al. 2
Coast, et al., M. J. Crowley et al. 2
Coast et al., M. J. Crowley et al. 2
Fee, McDivitt et al 2
Fee, Asa Root et al. 1
Fee, G. N. Hill 3
Fee, Colegrove Oil 3
Fee, C. M. & W. L. Dunning 3
Fee, C. M. & W. L. Dunning 3
Cass, Cuba Nat. Bank 4
Fee, J. A. Bucher.. 4
Fee, Bradley Producing Corp. 3
Fee, Producers Oil Corp. 3
Coast, et al., M. J. Crowley et al. 5
Coast et al., Messer Oil Corp. 5
Fee, Penn Petroleum Co. 4
Fee, C. M. & F. J. Lippert 1
Carls, J. F. F. Carls et al. 1
Fee, Ryder & Richmond Oil 1
Fee, Ryder & Richmond Oil 1
Fee, Ryder & Richmond Oil 1
Fee, McCaffery and First Nat. Bank, Olean 2
Fee, N. V. V. Franchot 5
Fee, F. H. Stephan 5
Fee, N. V. V. Franchot 5
Fee, Jacob Meridan et al. 4
Fee, N. V. V. Franchot 4
Fee, Mary Lippert 3
Fee, McCaffery and First Nat. Bank, Olean 2

Wells completed 32
Production 89
Pressure 2

BRADFORD FIELD

Mantz, 53, L. F. Kinley, et al. 1
212 Bing. 18, Esther Oil Co. Inc. 1
386 Bing. 78, Simpson et al. 1
386 Bing. 80, Simpson, et al. 1
386 Bing. 82, Simpson et al. 1
291 Bing. 96, Howard & McCallum 2
389 Bing. 65, D. W. Daly No. 1 5
389 Bing. 66, D. W. Daly No. 1 3
371 Bing. 58, Lane No. 1 et al. 1
371 Bing. 59, Lane No. 1 et al. 3
464 Bing. 31, R. S. Pringle 1
Forest Oil Corp., 8 oil wells 8
Forest Pet. Corp. 19 oil wells 19
Niagara Oil Corp., 4 oil wells 4
B. I. Taylor, South Penn. Oil 40 1
Dent, South Penn Oil 126 1
Lee, Hallock & Weston, South Penn Oil 109 1
B. I. Taylor, South Penn Oil 41 1
Burdick, South Penn Oil 75 1
Hamlin, South Penn Oil 126 1
Cross, South Penn Oil 11 1
Burdick, South Penn Oil 76 1
Bing. 151-154 S. P. O. B2-47 1
Bing. 190-196, S. P. O. 85 1
Bing.-Satterfield, S. P. O. 157 1
H. E. Smith, South Penn Oil 193 1
Bing.-Johnson, S. P. O. 56 1
Culbertson lot, S. P. O. 83 1
Kinzua wells, S. P. O. 192 1
Bing. 439, South Penn Oil 123 1
Bing. 450-474, S. P. O. 01 1
H. E. Smith, South Penn Oil 195 1
Bing. 533, South Penn Oil 113 1
Bing.-Satterfield, S. P. O. 159 1
Bing. 533, South Penn Oil 112 1
Bing. 501, South Penn Oil 22 1
H. E. Smith, South Penn Oil 196 1
Plan A. Tr. 23 Hazelwood Oil 162 1
Tract 23, Hazelwood Oil 177 1
Tract 28, Hazelwood Oil 79 1
Plan A. Tr. 23, Hazelwood Oil 165 1
Plan A. Tr. 23, Hazelwood Oil 171 1
Plan A. Tr. 3, Alleg.-Hazelwood Oil 56 1
Tract 27, Hazelwood Oil 149 1
Plan A. Tr. 23, Hazelwood Oil 168 1
Plan A. Tr. 23, Hazelwood Oil 172 1
Plan A Tr. 3, Alleg.-Hazelwood Oil 57 1
Plan A. Tr. 3, Alleg-Hazelwood Oil 86 1
Plan A Tr. 23, Hazelwood Oil 166 1
Plan A Tr. 3, Alleg.-Hazelwood Oil 54 1
Tract 23, Hazelwood Oil 178 1
Plan A. Tr. 3, Alleg.-Hazelwood Oil 59. 1
Plan A. Tr. 3, Alleg.-Hazelwood Oil 83. 1
R. Weston Jr., South Penn Oil. 2
Riddell estate, South Penn Oil 1
Riddell estate, South Penn Oil 3
W. Weston, Jr., Brad. Prod., Inc., 10 wells ..... water
Ada L. Cory, Smethport Oil 1
H. H. Redfield, South Penn Oil 6.... 1
E. J. Burns et al., Krampf & McCandless 2
Fee, W. T. Piper 3
Fee, W. T. Piper et al 8
Fee, R. O. Landers et al. 3
Fee, Anna Jane VanTine 2
Fee, Anna Jane VanTine 3
Fee, Hazelwood Oil 25
Fee, Hazelwood Oil 1
Fee, Grant & Mohan 3
N. V. V. Franchot, W. F. Kriz 2
Fee, Healey Petroleum 1
Fee, Healey Petroleum 1
Fee, Healey Petroleum 1
N. V. V. Franchot, Lillie I. Oliver 2
Fee, L. G. Dana 5
Hostetter estate, W. N. Hunter 3
Fee, E. C. Murphy 1
Griffith, et al., Tanner & McKean County Trust 8
Kemp, J. B. Jamison 2
Quintuple Oil Co., Jane Zane est. 1
Fee, Denis et al. 2
Bingham, Hazelwood Oil 2
Bingham, Associated Prod 1
Bingham 212, Associated Prod 7
Bingham 151, South Penn Oil 1
Bingham 533, South Penn Oil 3
Bingham 533, South Penn Oil 7
Bingham 494, South Penn Oil 2
Bingham 429, South Penn Oil 2
Fee, Olean Petroleum 2
Fee, Olean Petroleum 2
Kennedy & Clark, Phoenix Oil 15
Kinzua-Fee, South Penn Oil 14
Fee, W. C. Kennedy Co. 3
Ryan & Perry, Luke Bros. 5
Bingham 188, Harris Oil 3
Bingham 186, Hazelwood Oil 1
Bingham 128, Evans et al ..... water
Bingham 394, Soph & Wrights 2
Bingham 395, Sou.h Penn Oil 4
Bingham 390, South Penn Oil 2
Bingham 501, South Penn Oil 3
Bingham 472, Grant & Mohan 2
Bingham 583, Associated Prod. 3
Bingham 582, Associated Prod. 4
Bingham 576, South Penn Oil 2
Duke, Victor Schopperle 1
Duke, Victor Schopperle 1
Duke & Schorman 1
Simpson & Cooper, 5 oil wells 5
Borden, Staley & Luke 1
Alexander, A. Kinley et al. 2
Borden, Paton & Wilson et al. 5
Gilfillan, J. Mommer 3
Kapp, T. H. Kervin, Jr. 2
Borden, Sunny Oil 3
Melvin, South Penn Oil Co. 3
Melvin, South Penn Oil 3
Roggenbaum, J. Roggenbaum 4
Simpson, G. A. Simpson 4
Simpson, G. A. Simpson 4
Fee, Hope Oil 3
Ekas, Dallas Oil 5
Devlin, Forest Oil 4
Devlin, Forest Oil 4
Devlin, Forest Oil 4
Devlin, Forest Oil 4
Wright, S. S. Elder & Co. & Digel 2
Bingham, H. E. Camp est. 3
Barry, Mary E. Barry et al. 5
Bingham, South Penn Oil 7
Smith, Newton-Smith Oil 6
Smith, Newton-Smith Oil 10
Baldwin, Golden & Smith Oil 4
Rounds, N. V. V. Franchot 6
Fee, V. G. Smith 5
Fee, Curtis & Dunlavey Bros. 16
Fee, Mix Creek Oil 1
Fee, Mix Creek Oil 1
Weston, C. C. Rice et al 1
Chambers, Schorman & Williams 2
Fee, Grow Farm Oil 1
Fee, L. G. Schenfield 5
Russell, C. E. Potter 3
Melvin, South Penn Oil 1
Melvin, South Penn Oil 1
Melvin, South Penn Oil 1
Melvin, South Penn Oil 1
Whipple, South Penn Oil 1
Whipple, South Penn Oil 1
Whipple, South Penn Oil 1
Jones, South Penn Oil 1
Jones, South Penn Oil 1
Jones, South Penn Oil 1
Enterprise B. & P., So. Penn Oil 1
Midland-Taylor, South Penn Oil 1
Bingham 212, South Penn Oil 1
Tract 25, South Penn Oil 1
Gilpin, T. P. Thompson Jr. 1
Hemlock, G. A. Duke 1
Borden, W. T. Piper 1
Corwin, Wilson, Drake, T. H. Kennedy 1
Lawton, Suhr, McSweeny Co. 1
Mrs. C., pressure and water wells 86

Wells completed 277
Production 433
Pressure and water 86
Oil wells 191

MIDDLE FIELD

Wardwell, South Penn 1
Rogers, F. H. Trax 1
Johnson, Clinger Bros. & Taggart 51.. 5
McKean, Haskell et al. 28 5
Johnson, Johnson & Myers Bros. 16 1
Jennings, Titusville Trust 27 2
Lot 397, B. Hughes 7 3
Lot 396, Crescent Oil 2 2
Lot 438, J. G. Cochran 45 3
Grandin, South Penn Oil 58 4

Wells completed 10
Production 27

VENANGO-CLARION

Trye Bros. M. H. Snyder & Son 11 1
Trye Bros., M. H. Snyder & Son 12 1
Strong Oil Co., J. W. Osenider 21 1
Strong Oil Co., J. W. Osenider 22 1
Critchlow, James McElhaney 7 1
Doyle Est., Exchange Bk & Tr 14 2
Fowler, E. A. Burch 15 1
Hines, A. H. & F. P. Sloan 16 1
Goldstein, Anne Goldstein et al. 14 5
Frank, C. A. Frank 8 1
Frank, C. A. Frank 9 1
Bissell, Haun & Bonnett 7 1
McElphatrick, McElphatrick 26 1
Holstein, C. F., W. D. & T. C. Richey 31 1
Holstein, C. F., W. D. & T. C. Richey 32 1
Clark, Robt. & George Foggan 30 10
Clark, Robt. & George Foggan 31 .. 10
Clark, Robt. & George Foggan 32 .. 10
Clark, Robt. & George Foggan 33 .. 8
Calvert, R. M. Calvert 7 1
Cunningham heirs, Hutchinson & Eakin 37 1
Ghost, Bowers & Hovis 15 1
Cunningham, Rumsey & Lamberton 17 1
Rock Oil Co., Crawford, Gregory Rock acct. 29 1
Tract 74, S. Y. Ramage 91 1
Tract 74, S. Y. Ramage 92 1
Udo Simon, C. V. Simon 4 1
Hughes, R. A. Hughes 70 1
Hughes, R. A. Hughes 71 2
Martin, Franklin Trust et al. 24 1
Whid, H. C. & L. M. Graham 29 3
Best, A. M. Hulings 4 ..... dry
Crawford, L. H. Kistler 3 1
Crawford, L. H. Kistler 4 1
Paul & Simmons, E. C. Breene et al 45 1
Gill tract, W. J. Corse 27 1
Christy heirs, South Penn Oil 15 3
Christy heirs, South Penn Oil 16 1
Shrefler, R. L. Lamberton 2 3
Shrefler, R. L. Lamberton 3..... dry
Schwab, J. E. Keverline 10 1
Sporer, W. B. & F. E. Kapp 2 ..... gas
Powell heirs, U. N. Gas 2514 ..... gas
Van Camp, Shaffer & Stoner 1
Myers, Mrs. Addie Myers ..... dry
Clarion—
Ditz heirs, Ditz heirs Co. 1 ..... gas
Hook, C. H. Weaver 1 ..... gas
Howe, Star Drilling 1 ..... gas
Siegworth, Fryburg Motor 1, 2, 3 .... gas
Samuel Siegworth, Fryburg Motor 1 .. gas
Gillingham, John Gillingham 1 1
Heasley, Alum Rock Gas 4 1
Sheets, Dempseytown Gas 7 ..... dry
Fourte, Wood, Shorts et al. 1 ..... dry
Varnner, Franklin Trust 7 1
Breneman, W. W. Wilson 1
Seiper & Co., L. B. Shannon 32 .. dry
Slicker, H. J. Slicker Sons 13 1
Knappenberger, J. W. Knappenberger et al. 6 1
Brown, Baden et al., E. A. Bream Co. 2 gas
Slaugenhaupt, Neely, Bell et al. 1.... 1

Wells completed 63
Production 95
Dry 5
Gas 8

BUTLER-ARMSTRONG

Albert, Floyd Albert et al 1 ..... dry
Dewey, C. E. Jones 3 ..... dry
Double, Dan Maley & Co 1 2
Sherwin, S. Sherwin 13 2
McIntosh, Ainbaugh & Pickard 1 4
McIntosh, E. A. Dunlap 1 ..... dry
Reiger heirs, A. V. Reiger et al. 1 .. 1
Forcht, Forcht Bros. 2 1
Brown, Watson & Schenck 7 5
Thomas, Miller & Smith 2 ..... dry
Krenskie, Young & Deer Co. 1 ..... dry
Shakley heirs, Gibson Oil & Gas ..... dry
Meals, Carl Hilliard et al. 15 1
Campbell, Mark W. Graham et al 19 .. 3
Harper, McCandless, Russell et al. 4 .. 1
Snyder, M. B. Finnessy 16 1
Barkley, M. B. Finnessy acct. 3 27 .... dry
Wilson heirs, Garvin & Gettman 3 3
Dombart, Wm. Luntz et al. 2 3
Byers, Guy Sutton 15 3

Wells completed 20
Production 31
Dry 7

SOUTHWEST PENNSYLVANIA
WELLS COMPLETED
ALLEGHENY COUNTY

Stewar heirs, Carnegie Gas Co. 1..... dry
Ford, Walley Bros. 1 15
Wightman, Harbison & Co. 1 3
Ford, Neal & Co. 1 5
Chaney, R. C. & P. Chaney 4 ..... gas

WASHINGTON COUNTY

Keys, H. Oil & Gas Co. 2 25
Stevenson, James Duncan 1 2
Inglefield, H. Furman 1 ..... dry
American Steel Co., American Stl Co. 1 dry

GREENE COUNTY

Pyles, Peoples G as Co. 1 10

BUTLER COUNTY

Cole, Heck & Co. 2 ..... gas
Trees, A. E. Bream & Trees 8 ..... gas
Trees, A. E. Bream & Trees 9 8
Trees, A. E. Bream & Trees 10 ..... gas
Martin, Larlin & Co. 1 ..... gas
Johnston, Reimer & Co. 2..... gas
Shook, Heck & Co. 2 ..... gas

Wells completed 17
Production 48
Dry 2
Gas 8

WEST VIRGINIA
WELLS COMPLETED
LEWIS COUNTY

Burnett, Pgh. & W. Va. Gas Co. 1 ..... gas

MARION COUNTY

Snodgrass, J. J. Allen 1 ..... dry

MONONGALIA COUNTY

Headley, Phila. Oil Co. 3 ..... dry
Keck, Phila. Oil Co. 1 2

WETZEL AND TAYLOR COUNTIES

Meighen, Littleton O. & G. Trust 1.... 10
Marshall County Bank, Mfrs. L. & H. Co. 12 ..... gas
Shea, Maxon Oil Co. 12 15
Smith, J. H. Pents 2 2
Morgan, Rawe Bros. 6 ..... dry

MARSHALL COUNTY

Reese, G. B. Patterson 1 ..... dry

HANCOCK COUNTY

Lundoff, J. F. Flann 18 1

DODDRIDGE COUNTY

Chipps, G. L. Cabot 2 10
Mulligan, Phila. Oil Co. 1 2
Hudson, Phila. Oil Co. 2 10
Hiley, Pigott & Co. 2 2

RITCHIE COUNTY

Hall, Pgh. & W. Va. Gas Co. 1 ..... dry
Sternberg Realty Co., Astron Oil Co. 11 2
Mount, Burk O. & G. Co. 105 2
U. S. O. C., McGinnis & Co. 6 3
Showalter, Garrity & Burk O. & G. Co. 7 1
Lambert, So. P. O. Co. 11 10
Wilson, E. E. Pope 1 5
Colter heirs, N. Y. & Hudson Pet. Co. 3. 2
Phillips, R. C. Jackson 1 1
Bickerstaff, So. P. O. Co. 7 5
Ross, L. N. Rinehart 1 ..... dry

WIRT COUNTY

Vernon-Donoho, W. C. Patterson 39 ... dry
Roberts, Porter Abbott 1 ..... dry
Rathbone Oil Tract, Roberts Bros. 150. 2
Mayle, Biddle & Backus 3 2

CLAY COUNTY

Reed, V. G. & O. Co. 7 25
B. S. G. & Geary, V. G. & O. Co. 19 25

GILMER COUNTY

Ellis, So. P. O. Co. 6 20
Wolfe, Pgh. & W. Va. Gas Co. 3 ..... dry
Hays, Pgh. & W. Va. Gas Co. 1 1

WOOD COUNTY

McAtee, O. E. Grow 17 5
McAtee, Charles S. Smith 6 2
Athey, Stewart & Athey 3 2
Johnson, C. J. Johnson 4 1
Kingwood Orchard Co., Kingwood Orchard Co. 2..... 1
Uhl heirs, Briggs & Co. 6 1

PLEASANTS COUNTY

Pethtel, Hillman & Co. 1 4
Yergin, Oliver & Glenn 1 ..... dry
Severna, Dinsmoor & Co. 2 1

ROANE COUNTY

Stockly, So. P. O. Co. 96 20
Stockly, So. P. O. Co. 98 10
Fields, So. P. O. Co. 2 10
Fields, So. P. O. Co. 3 15
Hunt, V. G. & O. Co. 4 20
Tallman, V. G. & O. Co. 3 2
Nixon, U. F. G. Co. 1 ..... gas
Hopkins, Noble Beattie 1 4
Vandal, H. C. & R. Co. 1 10
Allen, Heck Oil Co. 2 50
Tallman, Heck Oil Co. 6 5
Morris, Valley Gas Co. 4 2
Riddle, Reedy Oil Co. 1 15
Westfall, U. F. G. Co. 2 ..... dry
Pursley, Morford O. & G. Co. 1 1

CALHOUN COUNTY

Bets, L. E. Gas Co. 2 10
Vandale, Federal O. & G. Co. 4 ..... dry
Turner-Arthur, W. H. Bickel 1 ..... gas
Harris, L. P. Bickel 1 ..... gas
Barr, Hope Gas Co. 1 10
Jones, Dailey & Son 1 ..... dry

JACKSON COUNTY

Shaffer, Heck Oil Co. 3 20
McCarty, So. P. O. Co. 5 25

KANAWHA COUNTY

Ling Land Co., U. F. G. Co. 255 ..... gas
Brown, V. G. & O. Co. 19 12

CABELL COUNTY

C. O. R. R., Harshbarger O. & G. Co. 1 gas
Swann, U. F. G. Co. 3,943 ..... gas

BOONE COUNTY

Allen, Hope Gas Co. 7,243 ..... gas
Powell, Owens B. & M. Co. 1 ..... gas
Chambers, Owens B. & M. Co. 1 ..... gas

Wells completed 74
Production 418
Dry 13
Gas 11

CENTRAL OHIO FIELDS

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Ashland	25	118	0	9	12	30	42
Medina	8	27	1	3	4	6	10
Lorain	4	0	1	3	1	6	7
Wayne	7	0	6	1	2	8	10
Holmes	5	65	1	3	5	8	13
Richland	1	0	1	0	2	3	5
Ashtabula	1	0	0	1	0	2	2
Knox	3	0	1	2	5	9	14
Coshocton	0	0	0	0	3	10	13
Summitt	6	0	1	5	2	23	25
Licking	21	168	0	7	8	16	24
Muskingum	6	136	2	1	2	16	18
Athens	10	0	0	10	5	10	15
Meigs	19	76	5	2	5	14	19
Jackson	2	0	1	1	7	14	21
Vinton	2	20	1	0	4	1	5
Pickaway	0	0	0	0	0	1	1
Lawrence	0	0	0	0	0	2	2
Mahoning	0	0	0	0	0	1	1
Stark	1	0	0	1	1	3	4
Tuscarawas	0	0	0	0	0	3	3
Fairfield	0	0	0	0	0	5	5
Guernsey	6	175	2	1	6	14	20
Belmont	3	0	2	1	0	3	3
Harrison	0	0	0	0	0	1	1
Delaware	0	0	0	0	0	1	1
Portage	0	0	0	0	1	0	1
Total Aug.	130	785	34	61	75	210	285
Total July	122	727	30	62	99	186	285
Difference.	7	58	4	1	24	24	0

WELLS COMPLETED

ASHLAND COUNTY

Greene—Marie Jones, Ohio Fuel Gas 1-3,584 ..... dry
D. C. Baker, Ohio Fuel Gas 1-3,585.. gas
C. W. Long, Ohio Fuel Gas 1-4,719.. gas
Vermillion—W. D. Atterholt, James Burtner, trustee 1 ..... gas
Orange—Ira Benner, Ohio Fuel Gas 3-4,712 ..... gas
John W. Gordon, Ohio Fuel Gas 1-4,-722 ..... gas
Jason Campbell, Ohio Fuel Gas 1-4,-730 ..... gas
Jackson—S. V. Plice, Ohio Fuel Gas 1-3,621 ..... dry
James Hess, Ohio Fuel Gas 1-3,620.. dry
Lake—Emma A. Devinney, Robinson & Co. 5 16
Barbara Easley, Robinson & Co. 1 .. dry
G. M. Heffelfinger, Robinson & Co. 2, 3 ..... dry
Phil Shaffer, Robinson & Co. 1 20
John Peters, Robinson & Co. 1 2
Albert Strang, Robinson & Co. 1 ..... dry
L. O. Chesrown, Davis & Co. 3 50
Ellis A. Morris, Preston Oil 3-1,349.. dry

P. J. Helbert, Harry Farmer 1 ..... gas
Ellis Aber, Round Lake Allotment 1.. gas
Mohican—Michael Ott, Sr., Maltzer & Co. 1 16
A. & H. Metcalf, B. Slagel 3 ..... dry
Montgomery—R. W. Topping, The Kemrow Co. 1 ..... gas
Perry—M. Devault, Preston Oil 3-1,349. 10
W. E. Strine, Robinson & Co. 12 4

Wells completed 25
Production 118
Dry 9
Gas 9

MEDINA COUNTY

Lafayette—Emma Torma, Ohio Fuel Gas 1-4,721 ..... gas
J. E. Gault, Ohio Fuel Gas 1-4,755 .. gas
Westfield—J. V. Flickinger, Ohio Fuel Gas 2-3,629 ..... gas
Harrisville—I. V. Atair, Harmon & George 3 ..... dry
A. D. Falconer, Ray C. Jones 2 4
A. D. Falconer, Ray C. Jones 3 4
Chatham—J. and A. Jalensics, East Ohio Gas 6 4
Sanford Watson, Oko Oil & Gas 27 .. 15

Wells completed 8
Production 27
Dry 1
Gas 3

LORAIN COUNTY

Grafton—Charles A. Schaeffer, Ohio Fuel Gas 1-4,758 ..... gas
Eaton—Earl C. Freeback, Ohio Fuel Gas 1-4,741 ..... gas
Carlisle—Julia Clark, Ohio Fuel Gas 2-4,785 ..... gas
Henry Smith, Daugherty & Co. 1 .... dry

Wells completed 4
Dry 1
Gas 3

WAYNE COUNTY

Congress—W. Clyde Fulton, Ohio Fuel Gas 2-3,616 ..... gas
H. P. Meyers, Hulse & Kundtz 1 .... dry
Plain—Elmer Ely, Garn-Woodward Oil 1 dry
Chester—Paul D. Grady, Ohio Fuel Gas 2-3,627 ..... dry
J. W. Twigg, Ohio Fuel Gas 1-4,728 .. dry
P. T. Swinehart, The Kemrow Co. 1.. dry
Franklin—James C. Clark, Bryan & Co. 3 ..... dry

Wells completed 7
Dry 6
Gas 1

HOLMES COUNTY

Hardy—Mary Beeler, The Kemrow Co. 2 65
Paint—Saville Herman, Ohio Fuel Gas 1-4,715 ..... gas
Monroe—C. C. Felton, Ohio Fuel Gas 1-3,508 ..... gas
J. T. Patterson, Arkansas Fuel Oil 3 gas
Knox—A. W. Weimer, I. E. O'Hail 1 .. dry

Wells completed 5
Production 65
Dry 1
Gas 3

ASHTABULA COUNTY

Conneaut—Mary E. Mace, Schaeffer Bros. 3 ..... gas

RICHLAND COUNTY

Monroe—H. H. Harris, Ohio Fuel Gas 1-3,456 ..... dry

KNOX COUNTY

Brown—J. J. Hyatt, Ohio Fuel Gas 1-3,619 ..... gas
Howard—J. Gaumer, Harry Ferkins 1.. gas
Monroe—William Hoovler, Upham Gas 1 dry
[illegible]

Wells completed 3
Dry 1
Gas 2

SUMMITT COUNTY

Franklin—J. M. Weaver, East Ohio Gas 1 ..... gas
Nancy Rhodes, East Ohio Gas 1 ..... gas
Charles Smith, F. A. Brendall & Co. 1 gas
Greene—Ada Leighton, East Ohio Gas 1 gas
Ami Goughler, F. A. Brendall & Co. 1 dry
O. F. Kepler, F. A. Brendall & Co. 1. gas

Wells completed 6
Dry 1
Gas 5

LICKING COUNTY

Fallsburg—James A. Little, Emerald Pet. 4 50
J. E. Martin, Emerald Pet. 5 12
Wayland Ashcraft, Preston Oil 2 4
Bowling Green—Bart Cooperider, Ohio Fuel Gas 2-2,831 ..... gas
Perry—James Wright, Hope Const. & Refg. 1 5
Joseph Chaney, Hulse & Kundtz 10.. 25
J. P. Murphy, Ohio Fuel Gas 1 7
Nellie Smith, Settles Oil 3 12
Ethel Frost, Sterl Brown 5 ..... gas
J. C. Burkholder, Whitehill Oil 1, 4, 6 ..... gas
Albert Ashcraft, Whitehill Oil 12 ... 6
Albert Ashcraft, Whitehill Oil 13 ... 5
H. H. Hoover, McClay Bros. 1 ..... gas
George Rogers, H. C. Farmer 2 ..... gas
Franklin—D. E. Dustheimer, Vaugh & Southern 6 2
J. W. Motherspaw, Armstrong & Lyttle 13 4
Hanover—J. C. Williams, North Fork Oil 7 2
Hopewell—Henry Loughman, Pure Oil 4 30
Madison—Melvin Stasel, Ohio Fuel Gas 1-4,800 4

Wells completed 21
Production 168
Gas 7

MUSKINGUM COUNTY

Falls—Amelia Smith, Ohio Fuel Gas 1-3,610 ..... dry
Jackson—W. E. Heiphrey, Hope Const. & Refg. 8 35
Lloyd McKee, Pure Oil 1 100
Monroe—Dan T. Duff, Fetty & Loucher 2 1
Perry—Walter Gotter, Mid-East Oil 1.. dry
E. H. Derry, Ohio Fuel Gas 1-4,750 .. gas

Wells completed 6
Production 136
Dry 2
Gas 1

ATHENS COUNTY

Ames—J. O. Anderson, Ohio Fuel Gas 1-4,745 ..... gas
Loring Hill, Ohio Fuel Gas 2-4,772 .. gas
Berne—C. D. Henry, Ohio Fuel Gas 3-3,522 ..... gas
Flora Fleming, Ohio Fuel Gas 2-3,-591 ..... gas
Carthage—J. W. Kincade, Ohio Fuel Gas 6-4,561 ..... gas
Mike Kinnen, Ohio Fuel Gas 6-4,747.. gas
Lodi—E. L. Sargent, Ohio Fuel Gas 1-3,594 ..... gas
O. E. McGirr, Ohio Fuel Gas 1-3,187.. gas
Lee—E. G. Winget, Ohio Fuel Gas 1-4,726 ..... gas
Rome—W. & C. Richardson, Ohio Fuel Gas 2-4,786 ..... gas

Wells completed 10
Gas 10

MEIGS COUNTY

Sutton—Robert Crew, Preston Oil 2-955 5
George J. Reefer, Preston Oil 2-1,337 8
Peter D. Carr, Southern Pet. 1 10
Mary Jividen, Tyree & Co. 1 6
Mary Jividen, Tyree & Co. 4 1
Mary Jividen, Tyree & Co. 5 6
J. W. Camden, Tyree & Co. 3 5
William Canahan, Tyree & Co. 12 .. 15
R. M. Beaver, Ket Thompson & Co. 1 dry
R. B. Sellers, Southern Ohio Pet. 1 .. 6
W. B. Cross, R. C. Miller & Co. 4 .... dry
Owen Watson, H. N. Hovis Co. 2 3
A. E. and D. Carnahan, Smith & Waterman 1 10
Price E. Wolf, Cochran & Co. 1 ..... dry
Bedford—John Heitger, Ohio Fuel Gas 2-4,735 ..... gas
Salisbury—William and Lena Wells, W. H. Shipe & Co. 1 1
Scipo—Lydia Rowley, H. McTaggert & Co. 5 ..... gas
Lydia Rowley, H. McTaggert & Co. 6 dry
Simons & Evans, H. McTaggert & Co. 5 ..... dry

Wells completed 19
Production 76
Dry 5
Gas 2

JACKSON COUNTY

Lick—Thomas Fox, Ohio Fuel Gas 1-3,569 ..... gas
W. H. Talbot, Ohio Fuel Gas 1-3,559.. dry

Wells completed 2
Dry 1
Gas 1

VINTON COUNTY

Knox—John Martin, Patton & Hultz 2 dry
Cameron Clark, Co-operative Oil 2 .. 20

Wells completed 2
Production 20
Dry 1

STARK COUNTY

Lawrence—Jacob Nichter, Penn Oil & Gas 2 ..... gas

GUERNSEY COUNTY

Wheeling—John Gramblitt, Ohio Fuel Gas 1-4,727 ..... gas
C. and A. Gray, North Salem Oil & Gas 1 85
William T. Virtue, Railston Oil 1 65
J. E. Sager, Local Oil 1 ..... dry
Cambridge—Chauncey Cropper, Ohio Fuel Gas 1-4,738 25
Westland—John A. Wycoff, Ohio Fuel Gas 3-4,784 ..... dry

Wells completed 6
Production 175
Dry 2
Gas 1

BELMONT COUNTY

Richland—Rehn-Overbaugh, Frank Stranges & Co. 4 ..... dry
Somerset—J. J. Jones, W. C. McBride, Inc. 1 ..... dry
Lucreatia Parkare, Lewis & Co. 2 .... gas

Wells completed 3
Dry 2
Gas 1

SOUTHEAST OHIO WELLS COMPLETED
MONROE COUNTY

Winland, Sylvania Prod. Co. 1 25
Bode, Timlin & Co. 1 75
Hine, Thrasbury & Luca ..... gas
Mallett, Preston Oil Co. 2 ..... gas
Roach, Dennis & Co. 1 2
Winland, Sylvania Prod. Co. 2 2
Wilhelm, Shay, McMullin & Co. 1 ..... dry
Hanson, L. A. Cobb 1 ..... dry
Windlan, Paine & Co. 9 1
Stegner heirs, Latimer & Co. 3 3

PERRY COUNTY

Lucas, Clyde Foraker 1 ..... gas
Harris, Trinway O. & G. Co. 6 ..... gas
Wright, The Wehrle Co. 1 ..... gas
Clark, Elder & Co. 1 ..... gas
Clark, Elder & Co. 2 ..... gas
McCune, Hope C. & R. Co. 5 5
McCune, Hope C. & R. Co. 6 45
Tracy heirs, Hope C. & R. Co. 5 15
Sunday Ck C. Co., Preston Oil Co. 1220 gas
Combs, Ohio Fuel Gas Co. 1 ..... gas
Wilson heirs, Northern Dev. Co. 1 30
Bennett, Miller & Co. 2 20
Burley, J. W. Leonard 3 20
Heskett, Miller & Co. 1 1
Tharp, P. Co. O. O. 2 20

HOCKING COUNTY

Burns, Gordon Oil Co. 1 5
Anthony, Gordon Oil Co. 6 50
Stone, Gordon Oil Co. 5 25
Anthony, Gordon Oil Co. 6 ..... dry
Reinscheld, Gordon Oil Co. 3 5
Nutter heirs, Chartiers Oil Co. 1 .... dry
Price, Preston Oil Co. 10 3
Nutter, Griffin Prod. Co. 2 ..... gas
Snider heirs, Arkansas F. O. Co. 6 10
Liff, Preston Oil Co. 2 45
Perry, Logan Gas Co. 1 ..... dry
Cropper, Ohio Fuel Gas Co. 1 10
Sager, Hastings & Co. 1 ..... dry
Gray, Watson & Co. 1 85

GUERNSEY COUNTY

Fulton, Ohio Fuel Gas Co. 1 ..... gas

MUSKINGUM COUNTY

Ball, Acha Oil Co. 1 ..... gas

LICKING COUNTY

Chaney, Kundtz Hultez Co. 10 25
Ashcraft, M. F. Whitehill 10 8
Helphrey, Hope C. & R. Co. 8 3
Helphrey, Hope C. & R. Co. 9 35
McKee, Pure Oil Co. 1 220
Moran, Preston Oil Co. 1 10
Waylan, Preston Oil Co. 6 10
Stasel, Preston Oil Co. 1 1
Dusthimer, C. H. Vaughn 6 2
Motherspaw, P. B. & T. Co. 13 2
Cooperrider, Ohio F. S. Co. 2 ..... gas
Loughman, Pure Oil Co. 4 30
Little, Emerald Pet. Co. 2 55

FAIRFIELD COUNTY

Black, Hope C. & R. Co. 4 ..... dry

NOBLE COUNTY

Wiper, Richardson & Co. 1 1
Williams, Miller & Co. 8 1
Mallett, Cain O. & G. Co. 6 ..... dry
Heil, McGinnis & Co. 1 ..... dry
Walter, Roberts & Co. 4 2
Noll, R. L. Smithberger 1 ..... gas

MORGAN COUNTY

Schof'eld, Skipton Farm Oil Co. 1 .... dry
Hallowell, Woodvard & Co. 2 1

ATHENS COUNTY

Martin, Koontz & Co. 2 ..... dry
Wingett, Ohio F. S. Co. 1 ..... gas
White, Young & Co. 1 ..... dry
Vorhees, Jones & Co. 5
Clark, Co-operative Oil Co. 1 15

MEIGS COUNTY

Sansbury, Cocheran & Co. 2 5
Heitger, Ohio F. S. Co. 1 0
Crew, Preston Oil Co. 2 4
Reefer, Preston Oil Co. 2 5
Carnahan, Twenty-Five Assn. 12 15
J. N. Carnahan, B. M. Tyree 1 5
J. N. Carnahan, B. M. Tyree 3 5
J. N. Carnahan, B. M. Tyree 4 2
Carr, Southern Ohio Pet. Co. 1 1
Sellers, Southern Ohio Pet. Co. 1 4
Cross, Miller & Co. 4 ..... dry
Berry, Keith & Co. 1 ..... dry
Circle, Palmer & Co. 1 ..... dry
C. R. Carnahan, Smith & Waterson 1.. 10

WASHINGTON COUNTY

Mendenhall, Parsons & Sweeny O. Co. 5 dry
Davis, Yellowhouse, O. & G. Co. 3.... dry
Leasure, Turney & Co. 5 2
Fills, Hickson & Co. 2 2
Armstrong, Newhart & Co. 2 2
Hood, Hood & Co. 5 2
Patterson, Patterson & Co. 3 ..... dry
Meister-Blair, Meister & Blair 6 1
Berg, F. D. Meister & Co. 10 1
Kidd, McIntyre & Co. 1 1
Ludington, Creighton & Co. 2 3
Reed, Buckley & Co. 11 ..... dry

JEFFERSON COUNTY

Watt, Elliott & Co. 1 ..... dry
Bosker, Unknown Parties 1 2
Groves, Boyles & Co. 19 ..... gas

CARROLL COUNTY

Ferguson, Ben Oil Co. 1 3

BELMONT COUNTY

Rehm, Dollar Savings Bank 1 ..... dry

ASHLAND COUNTY

Heffelfinger, Robinson & Co. 2 ..... dry
Alexander, Meltzer & Co. 1 10
Morris, Preston Oil Co. 3 ..... dry

MEDINA COUNTY

Watson, Oko Oil & G. Co. 27 15
Jackson, Prod. & R. Co. 5 5
Gatsomer, R. C. Jones 1 ..... dry
Gatsomer, R. C. Jones 2 5
Gatsomer, R. C. Jones 3 ..... gas

COLUMBIANA COUNTY

Anderson, George Kiel 1 ..... dry

STARK COUNTY

Purcell lot, W. H. Purcell 1 3
Alliance Brick Co. lot, Hill Top Oil Co. 2 ..... dry
Alliance Brick Co. Alliance Brick Co. 3 dry
Hartsell, Ray Miller 1 ..... dry

Wells completed 111
Production 1059
Dry 28
Gas 17

LIMA FIELDS

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Tl.
Wood	4	40	0	0	1	3	4
Hancock	3	50	0	1	2	3	5
Allen	4	50	0	0	0	2	2
Auglaize	0	0	0	0	0	3	3
Sandusky	2	60	0	0	0	4	4
Mercer	1	35	0	0	0	2	2
Seneca	2	5	0	1	0	10	10
Lucas	0	0	0	0	1	1	2
Ottawa	0	0	0	0	0	1	1
Wyandot	0	0	0	0	1	0	1
Shelby	1	35	0	0	0	0	0
Huron	0	0	0	0	0	2	2
Total Aug.	17	279	0	2	5	31	36
Total July	18	1,260	1	3	4	26	30
Difference.	1	981	1	1	1	5	6

WELLS COMPLETED
WOOD COUNTY

Montgomery—Holliday - Hamilton, Ohio Oil 40 ..... abd
Freedom—H. G. Foos, The Home Banking 1 10
H. G. Foos, The Home Banking 2 ... 25
Henry Moenter, August Bushman & Co. 1 ..... abd
E. Seiving, August Bushman & Co. 1 abd
Perrysburg—H. L. Schroeder, Wm. F. Johnson 1 1
Lake—F. L. Stone, Lantz & Co. 1 8

Wells completed 4
Production 44
Abandoned 3

HANCOCK COUNTY

Liberty—John Shank, L. Cramer 2 25
John Park, L. Cramer 2 25
Delaware—H. H. Howard, Talbot, Harmon & Watts 1 ..... gas

Wells completed 3
Production 50
Gas 1

ALLEN COUNTY

Bath—Philo Bassett, Neely & Nolan 6 15
Cyrus Hoover, C. A. and F. J. Peavey 1 20
E. F. Sandy, C. A. and F. J. Peavey 2 10
Marion—John Lucius, Alva Spencer & Co. 4 5
Sugar Creek—Cas. S. Irwin, Jacobs & Hasson 2, 7, 8 ..... abd

Wells completed 4
Production 50
Abandoned 3

SANDUSKY COUNTY

Washing on—Paul J. Fought, Gibsonburg Oil 2 25
Jackson—Geraldine Shaw, W. H. Alleman, trustee, 2 25
Woodville—Caleb Clink, Ohio Oil 10, 21 abd

Wells completed 2
Production 60
Abandoned 2

MERCER COUNTY

Union—T. G. Fireovid, Margaret E. Grace 4 35

SENECA COUNTY

Liberty—C. and O. Ewalt, Chas. Bell & Co. 1 ..... dry
Jackson—M. Jacobs, Columbus-Tiffin Oil 2 5

Wells completed 2
Production 5
Dry 1

LUCAS COUNTY

Oregon—Frank B. Niles, Ohio Oil 1, 2, 3, 4, 5 ..... abd

SHELBY COUNTY

Cynthian—B. Heiters, A. Ernst 1 35

ILLINOIS FIELDS

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Tl.
Clark	0	0	0	0	0	3	3
Crawford	5	106	0	0	2	2	4
Lawrence	0	0	0	0	0	1	1
Wabash	4	40	2	0	0	2	2
Effingham	0	0	0	0	0	1	1
Saline	0	0	0	0	0	4	4
Jefferson	0	0	0	0	0	1	1
Hamilton	1	0	1	0	0	0	0
St. Clair	65	3,129	1	0	0	37	37
Total Aug.	75	3,275	4	0	2	51	53
Total July	40	2,715	7	0	1	55	56
Difference.	35	560	3	0	1	4	3

WELLS COMPLETED
CRAWFORD COUNTY

Honey Creek—Jos. J. Ford, Selby-Cisler Prod. 18 2
C. O. Reavill, Selby-Cisler Prod. 51 .. 4
Mary E. Liston, Silurian Oil 5 45
Oblong—J. M. Drake, Ohio Oil 29 5
Prairie—Glade Granby, Porterville Oil 1 50

Wells completed 5
Production 106

WABASH COUNTY

Wabash—Jos. Keyser, J. S. Young, Jr., & Co. 12 25
F. M. Leek, Mt. Carmel Oil 10 15
Geo. A. Ramsey, Ramsey Oil 2 ..... dry
Wm. Price, Ridge Farm Oil 9 ..... dry

Wells completed 4
Production 10
Dry 2

ST. CLAIR COUNTY

Sugar Loaf—J. A. Reichert lot, Ohio Oil 1 50
Matilda Dyroff, Ohio Oil 7 150
Hull-Weihl, Ohio Oil 2 160
S. E. Schwartz lot, Otto Karbe 1 25
Wm. Bruer lot, Roddy & Logan 1 7
Fred Kelley lot, L. G. Blackman & Co. 1 80
C. P. Phelps lot, L. G. Blackman & Co. 1 40
S. J. Paul lot, L. G. Blackman & Co. 1 90
Anna Nolte lot, Clyde Sparks 1 80
L. A. Briggs lot, Thomas Whelan 1 .. 25
B. J. Mellon lot, Thomas Whelan 1 .. 25
Waiteside lot, Thomas Whelan 1 70
John Barker, Thomas Whelan 1 12
Lena Herbst lot, Thomas Whelan 2 ... 65
F. and N. Nieman lot, Thomas Whelan 1 20
Arthur Briggs lot, Thomas Whelan 1. 25
E. St. L. & C. W. R. R., Landwehr & Sacks 3 60
E. St. L. & C. W. R. R., Landwehr & Sacks 5 70
E. St. L. & C. W. R. R., Landwehr & Sacks 6 100
Robt. Rudolph lot, Keller & Co. 1 90
W. K. Melton lots, G. P. Hironimus 1 15
W. K. Melton lots, G. P. Hironimus 2 30
Lucia Carr lots, Majestic Oil 1 100
Luther Smith, Majestic Oil 1 40
H. J. Bruer lot, C. E. Karns & Shafer 1 15
E. St. L. & C. W. R. R., Landwehr & Sacks 7 40
Smallenberger lot, Muckerman & Hersig 1 25
Wm. Bruer lot, Sugar Loaf Oil 2 80
Dr. Cooper lo., Moseman Bros. 1 60
W. H. Linderman lot, James McKeak 1 125
J. Bonomme lot, H. & M. Operating 1 75

A. F. Smallenberger lot, H. & M. Operating 1 25
O. L. Dashner lot, H. & M. Operating 1 15
J. F. Ottis lot, H. & M. Operating 1 .. 25
F. and H. Welsborn lot, H. & M. Operating 1 7
Robt. Rudolph lot, Sparks & Poulton 1 40
A. D. Harlow lot, Sparks & Poulton 1 10
W. H. Lindemann lot, Sparks & Poulton 1 4
Smith-Creswell lots, Chas. E. Knox & Co. 1 20
Dickey-Monsette lots, Sidie & Bohannon 1 40
Dr. Cooper lot, Sidie & Bohannon 1 .. 25
Chas. LaCroix lot, Bingham & Abbott 1 50
Less Pullen lot, McKone & Co. 1 25
Chas. Welch, Jas. C. Ellis & Co. 1 .. 40
Chas. Drake lot, Murray & Ellis 1 .. 20
Hall-Weibl lot, St. Clair County Oil 1 35
Tom Arnold, W. S. Avery 1 ..... dry
Congregational Church lot, Trenton Rock Oil 1 50
H. Reynolds lot, Lee & Hoffman 1 .. 25
Wm. Hart lot, Cole & Esther 1 45
O. F. Smallenberger No. 2, H. & M. Operating 1 12
Matilda Dyroff, Ohio Oil 6 350
Hannie & Bachelor, Moody & Seagraves 1 15
E. St. L. & C. W. R. R., Landwher & Sacks 8 12
E. St. L. & C. W. R. R., Landwher & Sacks 9 25
Wm. Bruer, Sugar Loaf Oil 3 25
Mabel Glazier, Sidie & Bohannon 1 .. 70
W. Lindeman, Majestic O. & G. 1 .. 25
H. E. McDaniels, Majestic O. & G. 1. 30
Mary Monssette, Majestic O. & G. 1 20
G. W. Ludwig, Stinsen & Henry 1 .. 15
Geo. Riddle, Otto Karbe 1 20
Elizabeth Haller, A. R. Melton 1 70
J. P. McAlexander, G. P. Hironimus 1 30
Guy Reddick, W. J. Chapman 1 50

Wells completed 65
Production 3129
Dry 1

HAMILTON COUNTY

McLeansboro — South of McLeansboro, unknown 1 ..... dry

INDIANA FIELDS

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Dlg.	Ttl.
Adams	2	15	1	0	0	2	2
Gibson	3	0	2	1	0	3	3
Pike	8	53	2	3	2	5	7
Daviess	1	40	0	0	0	1	1
Vigo	1	75	0	0	0	2	2
Sullivan	3	25	0	2	0	4	4
Spencer	6	35	5	0	0	3	3
Perry	1	0	1	0	0	3	3
Dubois	0	0	0	0	0	2	2
Warrick	0	0	0	0	0	2	2
Vandeburg	0	0	0	0	0	1	1
Knox	0	0	0	0	0	1	1
Benton	0	0	0	0	0	1	1
Fountain	0	0	0	0	0	1	1
Wabash	0	0	0	0	0	1	1
Greene	0	0	0	0	0	2	2
Crawford	0	0	0	0	0	1	1
Posey	0	0	0	0	0	1	1
Lagrange	0	0	0	0	0	1	1
Martin	0	0	0	0	0	1	1
Johnson	0	0	0	0	0	1	1
Putnam	0	0	0	0	0	1	1
Morgan	0	0	0	0	0	1	1
Madison	0	0	0	0	1	0	1
Marshall	0	0	0	0	1	0	1
Shelby	0	0	0	0	0	1	1
Monroe	0	0	0	0	1	0	1
Total Aug..	25	243	11	6	5	42	47
Total July.	14	66	9	1	1	52	53
Difference .	11	177	2	5	4	10	6

WELLS COMPLETED
WELLS COUNTY

Wabash—L. Teeter, A. C. Spindler 1 ... dry
Jefferson—S. S. Egley, Geo. S. Lacknett & Co. 1 15

Wells completed 2
Production 15
Dry 1

RANDOLPH COUNTY

Monroe—Claud Calhoun, T. O. Tharp 1 abd

GIBSON COUNTY

Columbia—S. M. Cantrell, C. E. Wohmer & Co. 1 ..... dry
Barton—S. W. and W. S. Ferris, Gem Oil Corp. 3 ..... dry
James Ferris, Gem Oil Corp. 2 ..... gas
Washington—E. S. and L. W. McDonald, Lamberton & Lamberton 9 ..... abd

Wells completed 3
Dry 2
Gas 1
Abandoned 1

PIKE COUNTY

Clay—Jas. Hoagland, Wm. Bell & Son 1 dry
Phoebe McAtee, A. B. Bement Gas 2. 15
Washington—Lew George, Chas. C. Taliaferro, Jr. 3 ..... gas
Aaron George, Bement Gas 3, 4 ..... gas
Patoka—Alf Hurt, Peoples Pet. 2 13
M. E. Price, Roxana Pet. 1 ..... dry
Logan—G. Stewart, H. C. Darby & Co. 2 25

Wells completed 8
Production 53
Dry 2
Gas 3

DAVIESS COUNTY

Veale—Alonzo Veale, L. G. Gee & Co. 3 10
Asel Colbut, L. G. Gee & Co. 2 ..... abd
T. Ragsdale hrs., S. H. Parriott 1, 2. abd
J. M. Peck, S. H. Parriott 1, 2, 3, 4. abd

Wells completed 1
Production 40
Abandoned 6

VIGO COUNTY

Prairie Creek—Thomas-Williams, Siosi Oil Corp. 1 75

SULLIVAN COUNTY

Fairbanks—Elnore Williams, J. L. Bowman, rec., 3 25
Turman—Lige E. Duffer, Burns & Carey 1 ..... gas
Mary Mann, Burns & Carey 1 ..... gas

Wells completed 3
Production 25
Gas 2

SPENCER COUNTY

Ohio—Fred Butler, Davis & Co. 1..... dry
Henry Bretz hrs., Ellis & Young 1 .. dry
Chas. Huffman, Ellis & Young 1..... dry
Wm. Bretz hrs., Ellis & Young 2 .... dry
Raymond Bretz, Sharp Randall 1 ... dry
Lee Carlton, Packard Oil 7 35

Wells completed 6
Production 35
Dry 5

PERRY COUNTY

Cannelton—Geo. Beaver, Packard Oil 1 dry

MICHIGAN FIELDS

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Dlg.	Ttl.
Muskegon	34	8,040	3	0	20	36	56
Isabella	4	1,235	0	0	14	34	48
Midland	1	400	0	0	5	6	11
Kent	1	0	1	0	3	2	5
Ottawa	0	0	0	0	0	4	4
Oceana	0	0	0	0	1	6	7
Mason	0	0	0	0	1	4	5
Newaygo	1	0	1	0	3	9	12
Manistee	0	0	0	0	1	0	1
Van Buren	0	0	0	0	1	2	3
Montcalm	0	0	0	0	0	3	3
Shiawasse	0	0	0	0	0	1	1
Crawford	1	0	1	0	0	0	0
Allegan	1	0	1	0	1	1	2
Cass	1	0	1	0	0	2	2
Clare	0	0	0	0	1	3	4
Lake	0	0	0	0	0	3	3
Sanilac	1	0	1	0	0	0	0
Alpena	0	0	0	0	0	1	1
Tuscola	0	0	0	0	0	1	1
Huron	0	0	0	0	0	1	1
Mecosta	0	0	0	0	0	2	2
Gratiot	0	0	0	0	1	2	3
Kalkaska	0	0	0	0	0	1	1
Barren	0	0	0	0	0	2	2
Montmorency	0	0	0	0	1	0	1
Branch	0	0	0	0	0	1	1
Ingham	0	0	0	0	1	0	1
Emmett	0	0	0	0	1	0	1
Saginaw	0	0	0	0	0	1	1
Total Aug..	45	9,675	9	0	55	128	183
Total July.	49	18,820	8	1	46	142	188
Difference .	4	9,145	1	1	9	14	5

WELLS COMPLETED
MUSKEGON COUNTY

Muskegon—E. Plunkett, Puritan Oil 1 .. dry
Giles, Concord Oil & Gas 2 25
Torrent, Muskegon Oil Corp. 2 500
Koning-Bortz, L. R. Henley & Co. 2 .. 250
Giles, Natural Gas & Oil 3 30
Giles, L. E. Kennedy & Co. 4 55
Martin Berkema, Swastika Oil & Gas 3 75
J. S. Walker, Continental O. & G. 15.. dry
Andrew Luinstra, Concord O. & G. 1.. 100
A. Luinstra, Swastika O. & G. 1 75
F. J. Durham, M. & I. Oil & Gas 2 .. 5
Ira Hallock, Charles W. Marsh & Co. 6 150
Ira Hallock, Charles W. Marsh & Co. 7 150
Fee, Continental O. & G. 16 50
H. Smeltekop, Grand Rapids Oil 2 .. 200
J. B. Nichols, John R. Cox & Co. 1 ... 350
S. Daniloff, Muskegon Oil Corp. 7 ... 200
Forest Home Cemetery, Continental Oil & Gas 1 100
Laketon—C. I. Horton, Nelson & Witt 2 500
C. I. Horton, Nelson & Witt 3 500
C. I. Horton, Nelson & Witt 4 1000
Richard Andree, Nelson & Witt 3 ... 400
H. Young, Reed Oil 7 700
W. R. Dinan, Rock Oil 2 250
Alf Fenner, Witt & Wyant 4 300
Garrett VanLoo, Buckeye O. & G. 2..1000
George S. Brand, Republic Oil 3 200
George S. Brand, Republic Oil 4 220
Henry Dykstra, Fleeger-Ohlson Assn. 1 500
Nellie King, Dixie Oil 1 30
Carl Damm, Dollie May Damm 4 25
Art Grotefeld, Johnson O. & R. 4 50
A. H. Osgood, Wiser Oil 1 ..... dry
Alf. H. Fenner, Witt & Wyant 5 50

Wells completed 34
Production 8040
Dry 3

ISABELLA COUNTY

Chippewa—Fox, Pure Oil 1 360
Hendershot, Pure Oil 1 500
W. D. Gibson, Pure Oil 1 350
Bailey-Hall, Ohio P. & R. 1 25

Wells completed 4
Production 1235

MIDLAND COUNTY

Greendale—State Land, Pure Oil 1 400

KENT COUNTY

Carmon—Penning, Ohio Prod. & Ref. 1. dry

NEWAYGO COUNTY

Everette—J. Horner, F. Ranke O. & G. 1 dry

CRAWFORD COUNTY

Near Frederick—Unknown, Grayling Development 1 ..... dry

ALLEGANY COUNTY

Cheshire—F. L. Hamilton & Schrack 1. dry

CASS COUNTY

Milton—Frank Knowlton, Blair & Miller 1 ..... dry

SANILAC COUNTY

Meridian—Section 17, Unknown parties 1 dry

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SURVEYS
ESTIMATES OF OIL RESERVES

AN EXPERIENCED OIL FIELD ORGANIZATION

Oklahoma-Kansas and Eastern Pipe Line Report

OKLAHOMA-KANSAS
Pipe Line Statement for July

Runs

	Month	Dly. av.
Prairie P. L. Co.*	4,867,000	157,000
Gulf P. L. Co.	1,943,623	62,698
Texas P. L. Co.	878,464	28,338
Empire P. L. Co.	1,649,005	53,194
Magnolia Pet. Co.	2,261,251	72,944
Cosden P. L. Co.	719,339	23,204
Sinclair P. L. Co.*	3,379,000	109,000
Oklahoma P. L. Co.	3,724,797	120,155
Other companies*	6,820,000	220,000
Total July	26,242,489	846,533
Total June	24,193,700	806,456
Difference	2,048,789	40,077

Shipments

Prairie P. L. Co.†	7,048,297	227,364
Gulf P. L. Co.	1,924,134	62,069
Texas P. L. Co.	1,084,652	34,989
Empire P. L. Co.	1,365,571	44,050
Magnolia Pet. Co.	2,338,228	75,427
Cosden P. L. Co.	1,013,490	32,693
Sinclair P. L. Co.†	3,674,989	118,548
Oklahoma P. L. Co.	3,355,529	108,243
Other companies*	6,603,000	213,000
Total July	28,407,890	916,383
Total June	26,857,711	895,250
Difference	1,550,179	21,133

Stocks

Prairie O. & G. Co.*	36,940,000
Gulf P. L. and Gypsy Oil Co.	9,835,480
Texas P. L. Co.	8,371,562
Empire P. L. Co.	4,350,462
Magnolia P. L. Co.	9,894,115
Mid-Continent Pet. Co.	3,356,327
Sinclair Crude Oil Pur Co.*	20,276,000
Oklahoma P. L. Co.	3,486,975
Carter Oil Co.	10,371,944
Other companies*	10,670,000
Total July	117,552,865
Total June	117,822,300
Difference	269,435

*Estimated. †Prairie and Sinclair shipments include Texas crude oil.

Note—Stocks do not include approximately 6,000,000 bbls. of crude oil held in storage on private tank farms and leases.

EASTERN PIPE LINE REPORT

Runs From Wells

In the following table will be found the regular receipts from wells by various pipe lines in New York, Pennsylvania, West Virginia, Ohio, Kentucky and Indiana for June and July:

	June, '29	July, '29
National Transit	249,968.12	268,968.24
S W Pa. P L	92,002.02	96,958.15
Eureka P L	352,969.84	378,139.18
Buckeye P L (Macksb'g)	319,202.71	352,288.54
Buckeye P L (Cleve.)	11,542.95	12,698.84
Buckeye P L (Lima, etc.)	129,902.81	141,314.51
Indiana P L	6,724.29	5,565.67
Cumberland P L	171,863.19	217,391.68
N Y Transit	30,739.37	32,169.25
Tidewater P L	258,170.41	284,597.46
Pure Oil	55,379.02	164,484.42
Emery P L	65,056.05	72,339.64
Paragon Dev	15,728.09	16,335.33
Stoll Oil Ref	5,767.22	5,453.55
Total	1,765,016.19	2,048,704.46
Daily avg.	58,833.87	66,087.24

Note—Indian Refining Co. also reported other receipts of 353,591.45 bbls. Paragon Refining Co. had other receipts of 259,854.77 bbls. Paragon Development had other receipts of 560.26 bbls.

Petroleum Deliveries

The following tables exhibit the shipments or regular deliveries of various lines in New York, Pennsylvania, West Virginia, Ohio, Kentucky for June and July:

	June, '29	July, '29
National Transit	525,961.70	448,413.13
S W Pa. P L	443,209.38	492,117.59
Eureka P L	249,279.44	268,871.91
Buckeye P L (Macksb'g)	192,141.28	239,542.25
Buckeye P L (Cleve.)	2,429.40	2,190.55
Buckeye P L (Lima, etc.)	1,574,302.18	1,656,505.17
Indiana P L	1,380,019.54	1,426,217.69
Cumberland P L	218,131.40	200,632.22
Southern P L	.....	67,284.36
N Y Transit	250,768.40	308,215.81
Northern P L	160,597.19	173,766.22
Tidewater P L	222,328.15	245,185.79
Pure Oil	58,555.68	163,598.14
Emery P L	67,073.09	67,577.88
Paragon Ref	199,644.69	259,400.21
Paragon Dev	17,693.24	18,142.33
Total	5,562,134.76	6,037,661.25
Daily avg.	185,404.49	194,763.27

Indian Refining Co. reported other deliveries of 440,568.23 bbls.

Gross Stocks

The gross stocks held by various pipe lines in the oil producing sections of New York, Pennsylvania, West Virginia, Ohio, Indiana and Kentucky and Indiana at the close of June and July:

	June, '29	July, '29
National Transit	691,399.07	692,912.76
S W Pa. P L	535,525.28	579,475.28
Eureka P L	1,214,331.14	1,209,058.70
Buckeye P L (Macksb'g)	462,009.23	431,101.70
Buckeye P L (Cleve.)	50,131.07	71,815.42
Buckeye P L (Lima, etc.)	2,088,348.18	2,470,370.27
Indiana P L	542,191.55	638,128.50
Cumberland P L	539,241.87	559,326.34
Southern P L	471,032.50	417,168.75
N Y Transit	256,751.69	235,029.71
Northern P L	332,496.47	416,713.78
Tidewater P L	1,279,682.60	1,109,732.21
Pure Oil	10,619.05	17,189.77
Emery P L	7,937.53	12,197.88
Paragon Ref	23,504.69	22,399.32
Indiana Ref	145,225.30	59,096.91
Paragon Dev	6,051.72	4,897.15
Tuscarora	264,796.11	265,071.90
Total	8,921,275.05	9,211,595.35
Increase	17,715.35	
Increase		290,320.30

Grades of Oil

The following table shows the amount of the different grades of oil held by the Eastern Pipe Lines at the close of June and July showing the gross stocks of the above fields:

	June, '29	July, '29
Penn'a	3,279,171.77	3,230,774.85
Lima	635,542.29	701,522.68
Kentucky	718,933.39	780,445.07
Mid-Continent	3,914,745.95	4,226,436.12
Illinois	372,881.65	272,416.63
Total	8,921,275.05	9,211,595.35

Daily Average Runs

The following table shows the daily average runs of the Pennsylvania, Lima and Kentucky oil fields for the past four years:

	1926	1927	1928	1929
Jan.	55,630	56,209	52,904	51,749
Feb.	60,394	61,298	57,002	51,833
Mar.	61,644	63,247	57,485	54,252
April	63,019	60,927	56,812	58,444
May	60,580	60,284	62,067	59,902
June	61,121	62,757	58,230	58,833
July	63,206	58,674	57,144	66,087
Aug.	61,815	60,870	57,745	.....
Sept.	64,639	60,285	53,487	.....
Oct.	161,132	147,080	58,100	.....
Nov.	67,774	57,275	53,565	.....
Dec.	58,755	53,089	52,025	.....

Daily Average Shipments

The following table gives daily average shipments from the Pennsylvania, Lima and other fields for the past four years:

	1926	1927	1928	1929
Jan.	156,056	141,227	146,465	165,721
Feb.	159,488	138,534	167,368	159,387
Mar.	150,239	133,777	158,583	161,474
April	152,374	140,227	172,935	169,737
May	160,998	144,594	180,559	184,281
June	160,267	149,772	188,024	185,404
July	160,045	151,850	189,470	194,762
Aug.	151,929	188,652	192,853	.....
Sept.	158,915	144,213	194,138	.....
Oct.	161,132	147,036	176,000	.....
Nov.	172,608	150,975	176,898	.....
Dec.	136,428	144,504	173,572	.....

Gross Stocks

In the following table will be found the gross stocks of the various lines of the Pennsylvania, Lima and Kentucky oil fields, including oil received from other lines at the close of each month for the past three years:

	1927	1928	1929
Jan.	9,718,008	12,276,710	7,596,564
Feb.	10,119,162	12,180,419	8,738,335
Mar.	10,794,044	12,239,725	9,002,058
April	11,112,295	11,740,125	8,978,172
May	11,359,381	11,602,468	8,903,560
June	11,493,673	11,287,678	8,921,275
July	11,458,128	10,819,331	9,211,595
Aug.	11,989,115	10,236,743	.....
Sept.	12,212,716	9,660,910	.....
Oct.	12,047,661	9,229,709	.....
Nov.	11,939,740	8,366,553	.....
Dec.	12,340,297	7,539,555	.....

Franklin Pipe Co.

The following table exhibits the condition of the Franklin Pipe Line at the close of business for the months named and not counted in the stocks and averages reported above:

1923—	Runs	Shipments	Stocks
June	3,153.08	3,779.02	17,922.58
July	2,902.50	3,628.02	17,197.06
Aug.	2,874.11	3,350.13	17,721.04
Sept.	2,820.31	5,255.42	15,285.93
Oct.	1,289.93	538.89	17,551.93
Nov.	2,663.53	788.47	19,426.99
Dec.	3,053.60	3,167.53	19,426.99
1929—			
Jan.	2,099.90	.....	19,313.06
Feb.	2,469.47	4,873.20	17,009.23
March	3,330.82	3,595.01	16,745.04
April	4,864.07	4,243.59	17,365.52
May	2,688.59	2,455.54	17,598.57

The Illinois Field

The following table gives the report of the Illinois Pipe Line Co. in Illinois:

Gross stocks, August 1	2,215,713.59
Run from wells	583,490.36
Other receipts	310,310.99
Regular deliveries	749,945.27
Other deliveries	484,396.59

The amount of Illinois oil run by the Tidewater Pipe Co. in July was 27,616.43 bbls. Deliveries were 78,214.17 bbls. Adding these figures to those of the Illinois Pipe Line Co. makes the runs and deliveries as follows:

1928—	Runs	Deliveries
Aug.	639,074.85	671,864.02
Sept.	570,307.91	737,293.50
Oct.	626,147.64	626,290.40
Nov.	576,332.88	702,589.93
Dec.	584,633.00	491,517.26
1929—		
Jan.	570,727.38	545,084.66
Feb.	517,330.17	503,387.70
March	728,319.67	686,049.60
April	515,374.27	654,297.96
May	608,981.60	673,812.83
June	568,454.70	818,845.97
July	611,106.79	828,159.44

Tidewater Pipe Co., Ltd., also delivered in July, 232,272.03 bbls. Oklahoma oil.

AVERAGE DAILY RECEIPTS OF CALIFORNIA OIL AT ATLANTIC AND GULF COAST PORTS

Average bbls. per day—	ATLANTIC PORTS: Baltimore	Boston	New York	Philadelphia	Others	Total	GULF COAST PORTS: Galveston	New Orleans Baton Rouge	Port Arthur Sabine Pass	Tampa	Total	Total all ports
January	15,838	.....	16,676	11,838	7,938	52,290	.....	.....	.....	.....	5,161	57,451
February	14,214	.....	38,750	17,250	11,607	81,821	.....	.....	.....	.....	3,750	85,571
March	19,903	968	31,258	18,581	7,355	78,065	.....	.....	.....	.....	.....	78,065
April	16,667	.....	32,333	13,233	2,234	64,467	.....	.....	.....	.....	7,333	65,200
May	16,226	2,416	31,326	10,806	2,129	62,903	.....	.....	.....	.....	.....	62,903
June	14,866	3,167	23,100	10,300	6,100	57,533	.....	.....	.....	.....	.....	57,533
July	15,387	4,806	34,290	19,388	2,452	76,323	.....	.....	.....	.....	4,161	80,484

AVERAGE DAILY IMPORTS OF PETROLEUM AT PRINCIPAL UNITED STATES PORTS

Average bbls. per day—	ATLANTIC PORTS: Baltimore	Boston	New York	Philadelphia	Others	Total	GULF COAST PORTS: Galveston	New Orleans Baton Rouge	Port Arthur Sabine Pass	Tampa	Total	Total all ports
January	11,936	8,903	130,065	34,871	15,709	201,484	.....	34,808	4,098	1,287	40,193	241,677
February	13,750	15,071	135,179	32,750	17,893	214,643	.....	34,357	821	143	35,321	249,964
March	18,548	26,064	145,516	39,162	28,162	257,452	.....	42,581	2,322	.....	44,903	302,355
April	19,733	18,367	137,233	50,267	22,567	248,167	6,867	25,066	10,367	1,500	43,800	291,967
May	29,806	19,258	138,000	49,936	22,322	259,322	6,677	26,223	3,000	1,323	37,223	296,545
June	31,433	8,667	134,600	42,967	18,300	235,967	8,600	22,633	11,800	2,033	45,066	281,033
July	40,097	15,129	111,677	43,420	31,516	241,839	4,774	12,097	9,516	161	26,548	268,387

GROSS PRODUCTION IN THE UNITED STATES FOR 12 MONTHS (REVISED)

(In barrels of 42 gallons)

1928-29		California	Oklahoma	Texas	Kansas	Arkansas	Louisiana	Rocky Mts.	Eastern	Total
August:	Month	19,444,899	20,840,804	22,339,131	3,147,058	2,711,787	1,989,264	2,561,840	3,556,000	76,590,783
	Daily average	627,255	672,284	720,448	101,518	87,477	64,170	82,640	114,709	2,470,670
September:	Month	18,908,169	22,456,860	21,554,269	3,047,250	2,540,070	1,830,225	2,432,430	3,229,000	75,998,273
	Daily average	630,272	748,562	718,207	101,575	84,669	61,007	81,047	104,300	2,533,379
October:	Month	19,430,992	23,431,071	22,176,853	3,058,460	2,652,484	1,836,321	2,571,822	3,612,000	78,769,903
	Daily average	626,806	755,841	715,376	98,660	85,564	59,233	82,962	116,516	2,540,964
November:	Month	19,907,526	22,078,680	20,791,798	2,977,800	2,476,080	1,801,914	2,388,870	3,348,000	75,770,668
	Daily average	663,584	735,956	693,059	99,260	82,536	60,064	79,629	111,600	2,505,689
December:	Month	21,574,703	23,425,722	22,180,102	2,988,400	2,521,571	1,846,841	2,289,040	3,581,000	79,407,379
	Daily average	695,958	723,410	715,487	96,400	81,341	59,576	73,840	115,516	2,561,528
January:	Month	23,385,939	22,575,874	23,412,226	3,861,641	2,453,526	1,807,887	2,076,070	3,439,000	82,012,163
	Daily average	754,385	728,254	755,233	92,311	79,146	58,318	66,970	110,936	2,645,554
February:	Month	22,300,707	20,464,164	20,816,209	2,567,968	3,154,194	1,569,930	1,965,656	3,113,000	74,941,228
	Daily average	796,454	730,863	743,434	91,356	76,936	56,068	70,202	111,184	2,676,473
March:	Month	24,324,729	20,838,262	24,358,592	2,951,076	2,303,724	1,756,153	2,195,323	3,586,000	82,314,359
	Daily average	784,669	672,202	784,669	95,196	74,314	56,650	70,838	115,677	2,655,302
April:	Month	23,295,060	20,235,290	23,493,097	3,112,740	2,188,580	1,702,479	2,085,030	3,524,000	79,636,376
	Daily average	776,502	674,513	783,102	103,758	72,956	56,750	69,501	117,467	2,654,546
May:	Month	24,053,351	21,345,453	24,489,101	3,665,099	2,220,158	1,713,261	2,252,522	3,879,000	83,617,945
	Daily average	775,915	688,563	789,965	118,229	71,618	55,267	72,662	125,129	2,697,353
June:	Month	24,624,627	20,561,113	24,698,029	3,636,150	2,112,270	1,699,581	2,180,752	3,887,000	82,399,521
	Daily average	820,821	685,371	823,267	121,205	70,337	56,653	72,692	129,567	2,779,984
July:	Month	26,796,627	22,371,925	26,969,989	3,867,157	2,137,047	1,716,488	2,360,836	4,439,200	90,659,739
	Daily average	864,407	721,675	869,997	124,747	68,937	55,370	76,156	143,200	2,924,489
	Total 12 Months	268,047,329	259,625,217	277,279,396	37,870,799	28,471,591	21,270,244	27,360,691	43,193,800	963,118,357
	Daily average	734,376	711,302	759,670	103,756	78,004	58,275	74,961	118,339	2,638,630

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